

BIOSEB

In *Vivo* Research Instruments

2015



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Orders can be placed by mail, fax, telephone or e-mail. They must include an order number, the exact product model, its description, the name (written in full) of the person signing the order, his or her function, and his or her telephone number to enable us to make such requests for further details as may be necessary. Confirmation of Receipt of Order is forwarded to you by fax or email; it must be returned to us by fax or attached to an e-mail as a scanned document, signed by a person empowered to do so on behalf of the company. Such a person can also formally agree to our Conditions of Sales by sending us an e-mail acknowledging the terms of the order. The minimum order amount that we accept is EUR 45 excl of VAT. You can download the order form on our website. Do not add VAT to your order, unless delivery has to be done in France.

All orders are the object of Confirmation of Receipt of Order, with the delivery lead times. The usual lead time is 24 hours to 15 days. Delay in delivery cannot justify a cancellation of order or any penalties, excepted for public works contracts. The delivery lead times shown on the Confirmation of Receipt of Order are given on the basis of acceptance by return of fax within 24 hours. We make partial deliveries, unless the customer states otherwise in the order. Delivery costs are due for each order - the amount of these delivery costs is always mentioned on our Receipt of Order. The cost of Express deliveries is invoiced over and above these amounts.

All returns corresponding to an order correctly delivered is subject to a prior request to obtain an agreement and a return number.

If the buyer observes a non-compliance of the order (reference different from the one ordered, missing goods, ...) or a defective product, the claim must be received no later than within 48 hours after receiving the package and before using the equipment. If the problem is proved, the buyer will have the opportunity to claim the replacement of the missing or defective item. A credit note will be established if the goods are no longer available.

Any claim notified after with time is worthless. Returns must be made with a number of agreement provided by BIOSEB. If the goods supplied does not fit the buyer (size problem, not adapted use, ...), it can be returned to us after having reached an agreement on our part. The return will be made at the buyer's expense but will not be reimbursed. We will send you a credit note minus the restocking fees, if applicable. Their amount is usually of 20% of the price ex-taxes, excluding shipping costs.

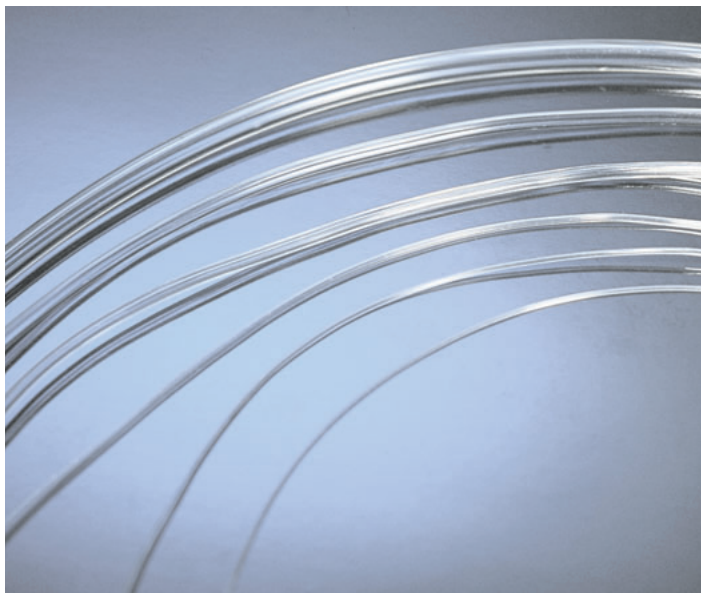
The equipment in question must be standard and absolutely new in its original packaging.

Any product in potential contact with animals must be certified as decontaminated before returning. Shipping costs for returning products are the responsibility of the buyer. When an order results in a customization (ear tags with custom numbering etching, for example), or when it concerns a service, such as calibration or any manipulation performed on a product identified by its serial number, it cannot give rise to an exchange or return.



Micro-Renathane® Implantation Tubing

Reduces the probability of intravascular thrombosis



Polyurethane Catheter Tubing

Braintree Scientific is proud to present a major advance in chronic catheter material. In our opinion, Micro-Renathane® is the most blood-compatible tubing ever made. For implantation studies in experimental animals this new tubing offers extended catheter life and reduces the probability of intravascular thrombosis.

The scanning electron micrographs (approx. 10,000X) illustrate the dramatic difference between Renathane tubing and conventional vinyl tubing. After use in hemodialysis, Renathane showed significantly fewer surface deposits of platelets, proteins, trapped red cells and other blood elements than other tubings.

"Medical Grade" Plastics

It is appropriate to clarify the definition of the phrases "medical grade" plastic and "FDA approved" plastic. There is no approved "medical grade" plastic or resin. Each individual supplier has his own criteria for what polymer and additive combinations constitute suitability for medical use. Similarly, there is no "FDA approved" plastic or resin in the Code of Federal Regulations. Food and Drugs, Title 21, Part 121, the FDA has listed the additives allowable in plastics intended for food contact use. In formulating a PVC compound for medical use the manufacturer generally chooses plasticizers, stabilizers, antioxidants, colorants, etc., which are acceptable for food use.

Micro-Renathane® does not contain any plasticizers.

Medical Uses of Polyurethane

Polyurethane based polymers were introduced into the United States from Germany. Early biomedical applications of polyurethanes were described by Boretos and Pierce. They reported excellent vascular acceptability in experimental heart-assist pump chambers and arterial cannulae. In subsequent work Boretos reported the absence of acute toxicity for segmented polyurethanes. He also reported that polyurethane rings did

not deteriorate or cause tissue reaction after implantation for 18 months. Lyman and coworkers have also investigated polyurethanes for the fabrication of heart-assist devices. Artificial heart devices were constructed of this material and implanted in calves. Other uses of polyurethanes as biomaterials have been described by Bruck. Polyurethane based polymers are currently commercially employed in hollow fiber kidneys, vascular catheters and intra-aortic balloons. Due to the slightly higher cost of polyurethanes, they have only been used where exceptional biologic and blood compatibility is required.

Micro-Renathane® is sold only for experimental use in laboratory animals.

A brief report, with references, is included with each shipment of Micro-Renathane®. We will be pleased to send a copy upon request.

Same price as 1989!

Supplied non-sterile. +/- .005

MODEL	OD/ID WALL
MRE-025	0.025" OD x 0.012" ID (0.64 OD x 0.30 ID mm)
MRE-033	0.033" OD x 0.014" ID (0.84 OD x 0.36 ID mm)
MRE-040	0.040" OD x 0.025" ID (1.02 OD x 0.64 ID mm)
MRE-050	0.050" OD x 0.040" ID (1.27 OD x 1.02 ID mm)
MRE-065	0.065" OD x 0.030" ID (1.65 OD x 0.76 ID mm)
MRE-080	0.080" OD x 0.040" ID (2.03 OD x 1.02 ID mm)
MRE-095	0.095" OD x 0.066" ID (2.41 OD x 1.68 ID mm)
MRE-160	0.160" OD x 0.091" ID (4.06 OD x 2.31 ID mm)
MRE-037	0.037" OD x 0.023" ID (0.94 OD x 0.58 ID mm)
MRE-040-S-20	0.040" OD x 0.020" ID (1.02 OD x 0.50 ID mm)
MRE-080-S-38	0.080" OD x 0.038" ID (2.03 x 0.96 ID mm)
MRE-COMBO	Combination of 36 feet in your choice of sizes
MRE-010	0.010" OD x 0.005" ID (0.25 OD x 0.12 ID mm)

*Kit includes 12 individually packaged 3ft lengths.

†Minimum 36' when ordering continuous lengths.

More length options available online at BraintreeSci.com

Teflon Coated Guide Wire

MODEL	DESCRIPTION
ST003-14	0.003" Teflon Coated Guide Wire 14"L (non-sterile)
ST003-7	0.003" Teflon Coated Guide Wire 7"L (non-sterile)

A Guide to Manufacture, Surgical Implantation, Maintenance and Use of Micro-Renathane® Vascular Catheters in Laboratory Animals

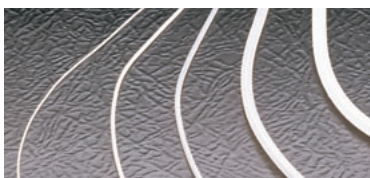
by Alfred Sherer, D.V.M. and Lewis Kinter, Ph.D.

This comprehensive manual includes how to manufacture catheters from Micro-Renathane® tubing, different implantation techniques, catheter use, and maintenance.

MODEL
MRE-MANUAL. Free Upon Request

RenaSil™ Silicone Rubber Tubing

RenaSil™ is a Platinum cured silicone tubing that is inert and contains no harmful leachable plasticizers. It is essentially non-reactive. The tubing will maintain its flexibility through a temperature range of -100°F to 500°F. Storage temperature and humidity have virtually no effect on silicone tubing, therefore shelf life is unusually long. This tubing may be autoclaved and re-sterilized without altering physical characteristics. RenaSil™ meets the standards of the US Pharmacopeia, Class IV and CRF 21 Part 177.2600 for food additives. All sizes are packaged clean, without talc and sealed in polyethylene bags.



Supplied non-sterile.

MODEL	OD/ID WALL
SIL025	0.025" OD x 0.012" ID (0.64 OD x 0.30 ID mm)
SIL037	0.037" OD x 0.025" ID (0.94 OD x 0.64 ID mm)
SIL047	0.047" OD x 0.025" ID (1.19 OD x 0.64 ID mm)
SIL065	0.065" OD x 0.030" ID (1.65 OD x 0.76 ID mm)
SIL080	0.080" OD x 0.040" ID (2.03 OD x 1.02 ID mm)

Polyethylene Tubing

Polyethylene is a relatively rigid polymer suitable for short-term catheterizations and for ex vivo applications. Polyethylene 'sleeves' can be slipped over less rigid catheter materials (Micro-Renathane™, Renasil™) at suture points to protect the latter from inadvertent constriction.

Supplied non-sterile. Minimum order 36 feet.

MODEL	OD/ID WALL
PE10	0.024" OD x 0.011" ID (0.60 x 0.28mm)
PE20	0.043" OD x 0.015" ID (1.09 x 0.38mm)
PE30	0.030" OD x 0.017" ID (0.76 x 0.43mm)
PE50	0.038" OD x 0.023" ID (0.965 x 0.58mm)
PE60	0.048" OD x 0.030" ID (1.22 x 0.76mm)
PE100	0.060" OD x 0.034" ID (1.52 x 0.86mm)

New! Tygon® Catheter Tubing

Flexible and clear; this tubing is ideal for cannulations. Easily fabricated to various catheter styles and virtually "kink free" when securing in a vessel and exiting the animal model. Material is less permeable than silicon rubber tubing and has a very smooth surface which inhibits thrombic events.

MODEL	OD/ID WALL	LENGTH
TYG-030	.03" OD x .01" ID (0.8mm x 0.3mm)	50 ft. coil
TYG-060	.06" OD x .02" ID (1.5mm x 0.5mm)	50 ft. coil
TYG-070	.07" OD x .04" ID (1.8mm x 1.0mm)	50 ft. coil

PTFE Heat Shrink Tubing

(USP Class VI Approved)

Medical grade polytetrafluoroethylene tubing has high tensile strength and preserves high fidelity pressure waveforms with very small internal diameter tubing. PTFE heat shrink tubing can be shrink-fitted to make secure connections with other devices. 2-1 heat-shrink ratio.

Supplied non-sterile.

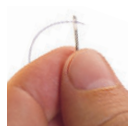
MODEL	EXP ID	REC ID	REC WALL	TOL
PTFE-015	0.034" ID (0.86mm)	0.015" ID (0.38mm)	0.006"	±0.002"
PTFE-018	0.038" ID (0.97mm)	0.018" ID (0.46mm)	0.009"	±0.002"
PTFE-032	0.055" ID (1.4mm)	0.032" ID (0.81mm)	0.012"	±0.003"
PTFE-039	0.060" ID (1.5mm)	0.039" ID (0.99mm)	0.012"	±0.003"

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PTFE Sub-Lite Wall® Tubing

A major breakthrough in micro-miniature tubing

(USP Class VI Approved)



Medical grade polytetrafluoroethylene tubing has superior lubricity and slides easily into tiny convoluted passages. No residue build-up inside tubing, non-toxic, non-contaminating, and easily sterilized (excluding Gamma). Compatible with tissues and fluids, yet withstands moisture, it is chemically inert and stable. Continuous service temperature (up to 500°F).

Supplied non-sterile.

MODEL	OD/ID WALL	THICKNESS	LENGTH
SUBL-060	0.006" x 0.002" (0.15 x 0.05mm)	0.002"	25 ft coil
SUBL-080	0.008" x 0.004" (0.20 x 0.10mm)	0.002"	25 ft coil
SUBL-120	0.012" x 0.006" (0.30 x 0.15mm)	0.003"	25 ft coil
SUBL-140	0.014" x 0.008" (0.36 x 0.20mm)	0.003"	25 ft coil
SUBL-160	0.016" x 0.010" (0.41 x 0.25mm)	0.003"	25 ft coil
SUBL-190	0.019" x 0.013" (0.48 x 0.33mm)	0.003"	25 ft coil
SUBL-220	0.022" x 0.016" (0.56 x 0.41mm)	0.003"	25 ft coil

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RenaPulse™ High Fidelity Pressure Tubing

Measure blood pressure and waveforms more accurately, while keeping superb biocompatibility

RenaPulse™ tubing, exclusively from Braintree Scientific, is made from a new material which transmits pulse waveforms with high fidelity. During pressure pulses, fluid flows into the catheter and depresses the diaphragm of a pressure transducer. However, the same pressure wave that reaches the transducer also causes the pressure catheter to bulge slightly. This bulging may allow a significant volume of fluid to flow in and out of the catheter with each pulse. Given the resistance of the catheter, this small flow can lead to pressure drop along the catheter and inaccurate pressure readings from the transducer. RenaPulse™ is a stiffer tubing which allows high fidelity measurement of systolic and diastolic pressures. Because air bubbles in pressure catheters are very 'soft,' they can completely distort the pulse wave. We make RenaPulse™ tubing transparent to help user locate and remove such bubbles. Small clots can block pressure catheters, and prevent pulse waves from reaching the transducer. Since RenaPulse™ has the superb blood compatibility of Micro-Renathane®, the chance of clot formation is greatly reduced.

These features make RenaPulse™ the tubing of choice for high fidelity pressure measurements in small animals. RenaPulse™ is flexible enough for direct vessel insertion. It can be bonded to luer lock terminations and stopcocks. RenaPulse™ can also be used with standard compression adapters or needle stubs.

Supplied non-sterile.

MODEL	OD/ID WALL
RPT-033	0.033" OD x 0.014" ID (0.84 OD x 0.36 ID mm)
RPT-037	0.037" OD x 0.023" ID (0.94 OD x 0.58 ID mm)
RPT-040	0.040" OD x 0.025" ID (1.02 OD x 0.64 ID mm)
RPT-080	0.080" OD x 0.040" ID (2.03 OD x 1.02 ID mm)

*Kit includes 12 individually packaged 3 ft lengths

*Minimum 36 feet when ordering continuous lengths.

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Vascular Catheters for Rats and Mice

Vascular catheters have stood the test of time because they are affordable and they work! These catheters, modified from the original design of Tinsley (1983), are fabricated with Braintree Scientific's medical grade polyethylene (PE) tubing and silicone rubber tubing (RenaSil™). Sealed with a stainless steel plug, when filled with a viscous catheter lock solution they maintain a very high rate of patency* for several weeks.

Both thoracic and femoral models feature:

- ▶ Externalized polyethylene (PE) tubing catheter port
- ▶ Flared for easy access with a blunted 23 ga. hypodermic needle for sampling or infusion
- ▶ Port is sealed with 0.025" diameter stainless steel plug when not in use
- ▶ Catheter port is designed to exit between the scapulae and to be secured with a single Autoclip® 9mm stainless steel wound clip.

Polyethylene (PE) tubing catheter body: The rigidity of PE tubing minimizes the incidence of catheter lumen constriction and relaxation, an "eye dropper" effect, which allows blood to enter the intravascular tip. All catheter anchor points allow for suturing around the PE tubing minimizing the likelihood of suture induced catheter lumen constriction.

RenaSil™ intravascular tip: RenaSil™ as the intravascular tip for reducing intravascular thrombus formation.

Reduced diameter intravascular tip: Reducing the inner diameter of the intravascular tip relative to the inner diameter of the port allows for efficient expulsion of blood from the intravascular tip. The last step following catheter implantation or use should be to advance the stainless steel plug into the port for a few millimeters. This is sufficient to expel trace amounts of blood from the intravascular tip with a minimum amount of catheter lock solution entering the bloodstream.

*Patency, especially for blood sampling, is highly dependent on the location of the intravascular tip.

Thoracic Catheter

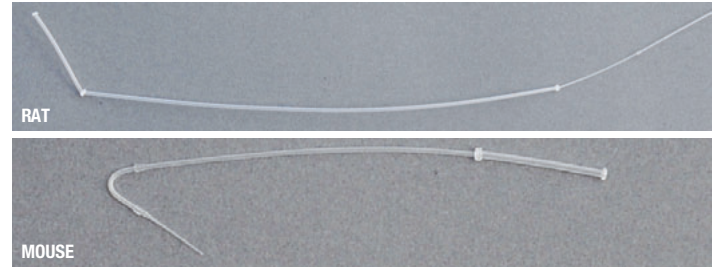


Suitable for blood sampling and/or drug infusion in either the jugular vein or carotid artery of the rat or mouse.

A subcutaneous retaining disk, consisting of 0.5" diameter surgical mesh attached at the base of the catheter port, can be added to the R-JVC, R-CAC, and the R-FAC/FVC at an additional cost. This disk serves to anchor the catheter if the wound clip is dislodged or removed. If ordering please add a "D" to the end of the model number.

MODEL	DESCRIPTION	CATHETER TIP LENGTH	TOTAL LENGTH
R-JVC	Rat Thoracic Jugular Vein	32mm	115-120mm
R-CAC	Rat Thoracic Carotid Artery	26mm	110-115mm
M-JVC	Mouse Thoracic Jugular Vein	13mm	58-60mm
M-CAC	Mouse Thoracic Carotid Artery	11mm	56-58mm
PP-23	Stainless Steel, 0.025" - dia. port plug dozen		

Femoral Catheter



MODEL	DESCRIPTION
R-FVC	Rat Femoral Vein Catheter*
R-FAC	Rat Femoral Artery Catheter*
M-FVC	Mouse Femoral Vein Catheter - catheter body length 45mm
M-FAC	Mouse Femoral Artery Catheter - catheter body length 45mm
PP-23	Stainless Steel, 0.025" dia. - port plug dozen

*Suitable for blood sampling and/or drug infusion in either the femoral artery or femoral vein. The rat femoral catheter is available in three different sizes of catheter body length; **large (160-170mm), medium (140-150mm), and small (120-130mm).** Please specify when ordering.

BTing™ Catheters

For rodent vascular applications

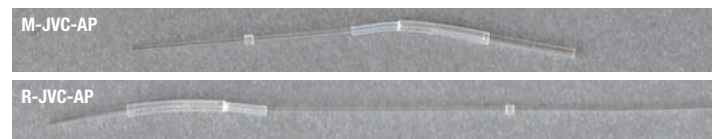


What is Bump-tubing (BTing™)?

Bump-tubing is a continuous length of Tecoflex® polyurethane tubing with a tapered transitional section resulting in catheter tubing with the intravascular tubing section having an ID/OD of 0.012"/0.025" and an extravascular tubing section having an ID/OD of 0.023"/0.037".

MODEL	DESCRIPTION
BTing-M	Mouse Jugular Vein Catheter Total catheter length: 65mm Intravascular tippet length: 13mm External catheter length: 10-15mm
BTing-R	Rat Jugular Vein Catheter Total catheter length: 115mm Intravascular tippet length: 32mm External catheter length: 25-30mm

Intravenous Osmotic Pump Catheter



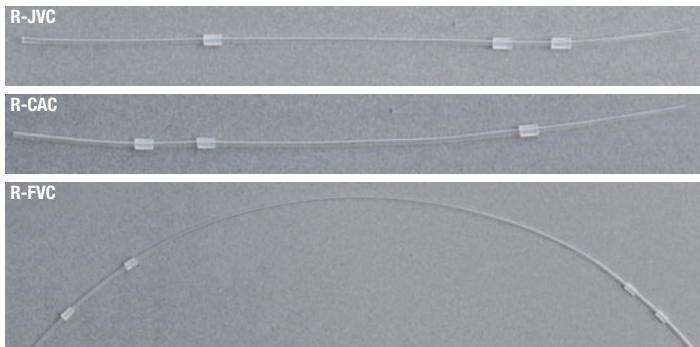
Braintree Scientific's Micro-Renathane® based catheter for continuous, intravenous (via the jugular vein) administration of drug solutions delivered with the ALZET® Osmotic Pump. Catheter can be modified for infusion via other blood vessels (please inquire).

Supplied non-sterile

MODEL	DESCRIPTION
R-JVC-AP	Rat Intravenous Osmotic Pump Catheter
M-JVC-AP	Mouse Intravenous Osmotic Pump Catheter



Polyurethane Rat Vascular Catheters (Micro-Renathane® and RenaPulse™)



- ▶ Catheters consist of a continuous length of MRE037 or RPT037 with RenaSil, suture anchors
- ▶ Catheters are accessed with Cat. #N-23 catheter needle
- ▶ Sealed with Cat. #23-PP catheter plug
- ▶ No adhesives; suture anchors grip the catheter tubing without constricting the catheter lumen and are movable
- ▶ Catheter tip rounding available for MRE037 catheter fabrications

Rat Thoracic Catheters

Rat jugular vein catheter specifications:

Total catheter length: 120mm

Port length: 25mm

Intravascular length: 32mm

Number of retention beads: 3

MODEL	DESCRIPTION
R-JVC-M37 (MRE-037)	Rat Jugular Vein Catheter
R-JVC-R37 (RPT-037)	Rat Jugular Vein Catheter
R-JVC-M37-R (MRE-037)	Tip rounding for Rat Jugular Vein Catheter

Rat thoracic carotid artery specifications:

Total catheter length: 120mm

Port length: 25mm

Intravascular length: 26mm

Number of retention beads: 3

MODEL	DESCRIPTION
R-CAC-M37 (MRE-037)	Rat Carotid Artery Catheter
R-CAC-R37 (RPT-037)	Rat Carotid Artery Catheter
R-CAC-M37-R (MRE-037)	Tip rounding for Rat Carotid Artery Catheter

Rat femoral artery catheter specifications:

Total catheter length: 230mm (l), 210mm (m), or 190mm (s)

Intravascular length: 40mm

Port length: 25mm

Number of retention beads: 4

MODEL	DESCRIPTION
R-FVC-M37 (MRE-037)	Rat Femoral Artery Catheter
R-FVC-R37 (RPT-037)	Rat Femoral Artery Catheter
R-FVC-M37-R	Tip rounding for Rat Femoral Artery Catheter

Restrained Tail Vein Infusion Model



Most researchers use butterfly needles to administer fluids via the tail vein. Allows access for both timed injections and repeated bolus administration. The MTV-1 system incorporates a small catheter that is easily inserted into the tail vein and will remain insitu in a restrained mouse for as long as restraint is feasible. Due to the

flexibility and size of the catheter, trauma to the tail vein is minimized, allowing for long term and repeated bolus dosing. By avoiding the damage associated with indwelling needles there is an increased chance that the tail vein will remain viable for the duration of the study.

MTV-2, MTV-2S, MTV-3 catheters are used for researchers that use small bore MRI machines or that need extra length for long bore magnets.

MTV-9 includes stylet, splittable needle and injection cap.

- ▶ Eliminates the need for an assistant
- ▶ Reduces setup and procedure time
- ▶ Provides superior control
- ▶ Improves visualization

MODEL	DESCRIPTION
MTV-1	Restrained Tail Vein Infusion Catheter 10cm of 28ga (0.014" x 0.007") connected to 7" of (0.033" x 0.014") with stylette and 23ga thin wall needle
MTV-2	10cm of 28ga (0.014" x 0.007") connected to 20" of (0.033" x 0.014") and 23ga thin wall needle, no stylette
MTV-2S	10cm of 28ga (0.014" x 0.007") connected to 20" of (0.033" x 0.014") with stylette and 23ga thin wall needle
MTV-3	10cm of 28ga (0.014" x 0.007") connected to 31.5" of (0.033" x 0.014") and 23G thin wall needle, no stylette

More options available online at BraintreeSci.com

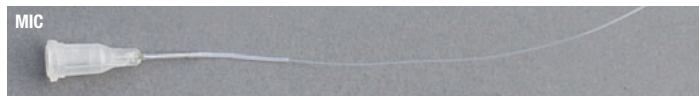
Micro Cannula System



The Micro Cannula System provides quick and convenient access to an artery or vein in small animals such as mice and rats. The tapered design of the PFA tubing provides strength while maintaining a very small distal tip of 0.016" OD x 0.008" ID. The sharpened stylette and beveled tip provides easy insertion into any vessel. Total length is approximately 10cm not including the stylette.

MODEL	DESCRIPTION
MC-28	Micro Cannula System

Molecular Imaging Catheters



Catheter consists of medical grade PTFE tubing (SUBL-160, .016" OD x 0.010" ID), 40cm long with an attached 27ga blunted luer hub.

MODEL	DESCRIPTION
MIC	Molecular Imaging Catheter

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Tel: +33 (0) 820 825 523

Fax: +33 (0) 820 825 521

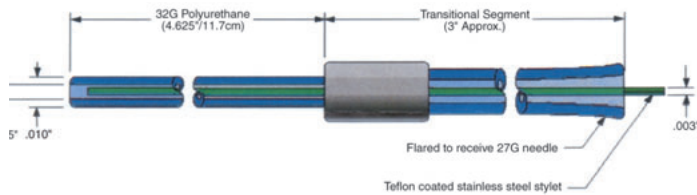
E-Mail: info@bioseb.com

Web: www.bioseb.com



32ga Mouse Catheter System

This catheter system offers the smallest diameter catheter/stylet product available for murine procedures



Ultra-thin diameter catheters for applications in mice:

This 32ga murine catheter is a key component of a withdrawal/delivery system specifically developed for use in mice and other small research animals. A significant achievement over standard polyethylene-based products, its material and small size combine to produce a minimally reactive catheter, thereby reducing catheter-induced artifacts that could obscure experimental observations. Suitable for cardiovascular, intracranial, and other applications.

Includes:

- ▶ 11.7cm 32ga (0.010" OD/0.005" ID) polyurethane catheter
- ▶ Bonded connection assembly flared to accept a 27ga needle
- ▶ 0.003" diameter Teflon®-coated stainless steel stylet to facilitate placement
- ▶ Individually packaged

MODEL	DESCRIPTION
CS-32	32ga Intracranial Catheter System

Intrathecal Catheter



Braintree Scientific's rat intrathecal catheter offers a means for the administration of microliter amounts of drug solution to the lumbar (or higher) region of the rat spinal cord. This catheter system is ideal for use in antinociceptive studies involving rats.

MODEL	DESCRIPTION
R-ITC	Intrathecal Catheter
27-PP	Stainless Steel, 0.016" dia. port plug dozen

Mouse Intravascular Catheter

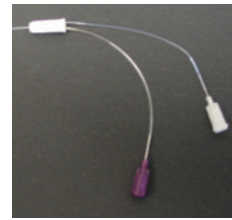


Designed for quick and easy insertion into arteries and veins of mice and rats (primarily mice).

Supplied sterile.

MODEL	DESCRIPTION	SIZE	TIP OD	TIP ID	MATERIAL
MC-0189EO	Mouse Catheter	28G, 60mm	.014"	.007"	PU

Double Lumen Catheters



This double lumen catheter has an outer diameter of only 0.040" and consists of an inner SUBL-160 (PTFE) catheter and an outer MRE040 (polyurethane) catheter. The standard length of this double lumen catheter is 6" with both lumens opening at the proximal tip. The distal ends are equipped with luer hubs.

Supplied non-sterile.

MODEL	DESCRIPTION
DL-AS-040	MRE-040 OD/SUBL-160

Stereotaxic Brain Lesioning Cannula



These stainless steel cannulae are designed to fit in slotted acrylic stereotaxic clamping devices and are ideal for administering chemical solutions to discrete areas of the rat and mouse brain.

- ▶ Cannula consists of a 60mm length of 30ga stainless steel hypodermic tubing with a 45mm overlapping sleeve of 23ga stainless steel tubing to facilitate secure placement by the stereotaxic clamping device
- ▶ Tip of the cannula consists of exposed 30-gauge stainless steel hypodermic tubing, 10mm long
- ▶ Cannula comes with an 18" length of Tygon tubing with an end designed to fit over a micro syringe needle tip

MODEL	DESCRIPTION
RM-SBL	Stereotaxic brain lesioning cannula

Bile Duct Catheter

For bile duct collection in rats, with a fine diameter tip (MRE-025).

MODEL	DESCRIPTION
BDC-R	Rat Bile Duct Catheter
BDC-M	Mouse Bile Duct Catheter

Duodenal Rat Catheter

Can be used as a return catheter; to shunt the bile into the duodenum; its tip is larger in diameter (MRE040).

MODEL	DESCRIPTION
R-DUOD	Duodenal Catheter

VAKU-8+ Safety Blood Collection Set/Infusion Set



Quiet Needle™ motionless needle system and Safety Guard for user's protection.

Its unique design allows the needle to rest motionless when the back end is moved; unlike other brands packaged in "coils" where the needle moves with the slightest movement of the back end. VAKU-8+ is packaged in convenient long thin packages that fit easily in lab coats and trays.

MODEL	DESCRIPTION
VACU8-21	21ga, 8"L Tubing (sterile)
VACU8-23	23ga, 8"L Tubing (sterile)
VACU8-25	25ga, 8"L Tubing (sterile)*100 items per pack



Blunt Tip Catheter Needles

Stainless steel, blunt tip, hypodermic needle with standard luer hub. For use as an interface to connect a hypodermic syringe directly to catheter port for intravascular substance administration, blood sampling and catheter flushing.

MODEL	DESCRIPTION	UNITS
NB-30	30 gauge - 0.5"	1 dz
NB-27	27 gauge - 1"	1 dz
NB-26	26 gauge - 0.5"	1 dz
NB-25	25 gauge - 1"	1 dz
NB-23	23 gauge - 1"	1 dz
NB-22	22 gauge - 1"	1 dz
NB-21	21 gauge - 1"	1 dz
NB-20	20 gauge - 1"	1 dz

Sharp Tip Catheter Needles

Ultra-sharp, tri-beveled, anti-coring, stainless steel needle. Translucent, color-coded luer lock hub.

Supplied sterile.

MODEL	DESCRIPTION	UNITS/PK
NS-30	30 gauge - 0.5"	100
NS-27	27 gauge - 0.5"	100
NS-25	25 gauge - 1"	100
NS-23	23 gauge - 1"	100
NS-22	22 gauge - 1"	100
NS-21	21 gauge - 1"	100
NS-20	20 gauge - 1"	100
NS-18	18 gauge - 1"	100

Stainless Steel Port Plugs

Stainless steel port plug, 0.5" length.

MODEL	DESCRIPTION	UNITS
PP-30	0.012" plug	1 dz
PP-28	0.014" plug	1 dz
PP-27	0.016" plug	1 dz
PP-23	0.025" plug	1 dz
PP-22	0.028" plug	1 dz
PP-21	0.032" plug	1 dz
PP-20	0.036" plug	1 dz
PP-19	0.042" plug	1 dz

Stainless Steel Connectors

Stainless steel tubing connectors, 0.5".

MODEL	DESCRIPTION	UNITS
C-30	30 gauge	1 dz
C-28	28 gauge	1 dz
C-27	27 gauge	1 dz
C-23	23 gauge	1 dz
C-22	22 gauge	1 dz
C-21	21 gauge	1 dz
C-20	20 gauge	1 dz
C-19	19 gauge	1 dz

Straight Non-Coring Huber Needles



Great for dosing or sampling. Use with an access port or injection cap. Special point allows for greater septum life.

MODEL	DESCRIPTION	UNITS/PK
H22-75	22 gauge 0.75"	25

GentleSharp

A More Humane Blood Sampling System

GentleSharp uses micro-vibrations to help sharps puncture and glide through tissue more smoothly, minimizing subject discomfort and stress during small volume blood sampling.



The research behind Gentle Sharp scientific studies showed reduced stress in rats and mice as well as improved success for novice users

Research not only outlines the major findings, but also summarizes results and experimental design for each:

- ▶ Reduced plasma corticosterone for serial blood
- ▶ Reduced animal movement and vocalization for serial blood collection
- ▶ Reduced peak insertion force during rat tail penetration
- ▶ Decreased needle insertions for serial blood collection
- ▶ Increased collection success for serial blood collection
- ▶ Decreased needle insertions for serial blood collection - repeated sampling on same day
- ▶ Increased collection success for novice collectors
- ▶ Increased blood mass for serial blood collection
- ▶ No significant change in mice handling time for serial blood collection

MODEL	DESCRIPTION
GS-101-2	GentleSharp System - 2' cord
GS-101-4	GentleSharp System - 4' cord
GS-201	Hard Carrying Case with custom foam insert
GS-301	Solid Lancet - 25g, 5/8" length 100/pk

University discount available through March 2015, call for pricing.

Trocars

Skin tunneling needles (trocars) offer a quick and easy method for routing catheters and electrodes subcutaneously. Trocars are manufactured from thick walled medical grade stainless steel and have a semi-blunt 45 degree beveled tip or a stylet. The 7g trocar is perfect for most large animal catheters while 10g is suited for smaller animals and catheters. Call for custom lengths.



MODEL	DESCRIPTION
TRO-7-6	Semi-blunt tip, 7 gauge x 6"/15cm
TRO-7-12	Semi-blunt tip, 7 gauge x 12"/30cm
TRO-10-8	Semi-blunt tip, 10 gauge x 8"/20cm

Trocars with Stylet

TRO-14MS	Mouse Trocar with Stylet
TRO-7B-12	Semi-Blunt Tip, 7 gauge x 12" with Stylet
TRO-7B-6	Semi-Blunt Tip, 7 gauge x 6" with Stylet

Vein Pick

Holds vessel open during cut-down catheter insertion procedure. Tapered tip of vein pick is inserted into incision of vessel. Catheter slides under groove on underside of vein pick into vessel.



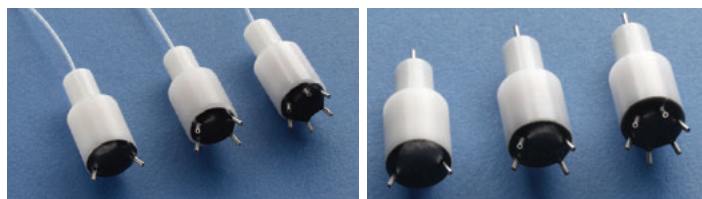
MODEL	DIMENSIONS	UNITS/PK
VPK	Tapered tip Vein Pick	10

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Miniature Manifolds



Perfusion manifolds can be used in any application where from 2 to 8 perfusion lines are required to be connected to a chamber or other device. Manifold input/ports converge to the common output with minimum dead space. Designed for use with polyethylene (PE) tubing, manifolds can be used with any other tubing of similar dimensions. When connected to a chamber via a short length of tubing, very rapid solution changes are possible.

Miniature manifolds are useful for applications involving small volumes or slow flow rates. Small diameter tubing is used with these models; PE-50 tubing for the input ports, and PE-10 or PE-50 tubing for the MM or ML series output ports, respectively.

Specifications:

Material: Delrin™

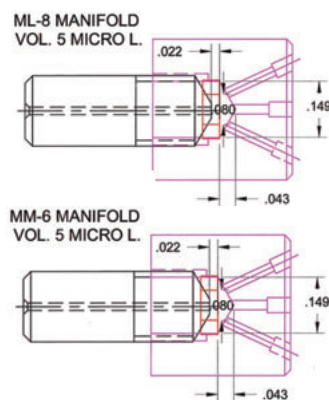
Large Diameter: 8.0mm

Small Diameter: 4.7mm

Body Length: 18mm

Input Tubing: PE-50

Output Tubing: ML Series PE-50, MM Series PE-10



MODEL	DESCRIPTION
ML-2	Miniature Manifold, 2 ports
ML-4	Miniature Manifold, 4 ports
ML-6	Miniature Manifold, 6 ports
ML-8	Miniature Manifold, 8 ports
MM-2	Miniature Manifold, 2 ports
MM-4	Miniature Manifold, 4 ports
MM-6	Miniature Manifold, 6 ports

Y Connector Catheter



Y Connector Catheter is designed to be used with a syringe pump for infusion and withdrawal of fluids. Primarily used to adapt two osmotic pumps to one catheter line.

Supplied sterile.

MODEL	DESCRIPTION	SIZE	TUBE OD	TUBE ID	MATERIAL
Y-0225EO	Rat Y Connector Catheter	4.5F, 40mm	.039"	.023"	PE
	Double outlets		.052"	.034"	PE

Skin Buttons



Rodent skin button with luer attachment: With all the features as the standard skin button, the skin button with a luer attachment allows for an external access port to the animal's catheter. The animal's catheter is passed through the skin button and attached to a luer fitting. The luer fitting allows for easy sampling or dosing via the animal's catheter. This product comes as two pieces and is easily assembled during surgery.

MODEL	DESCRIPTION
SBD-02	Skin Buttons

Cath-Loc HGS: Heparin/Glycerol Catheter Lock Solution



The antithrombotic characteristics of heparin plus the viscous nature of glycerol is combined in a solution to promote and extend the patency of vascular catheters. Proven as the solution of choice in studies in catheterized animals*, Cath-Loc HGS solution acts as a non-toxic anticoagulant lock solution for indwelling catheters. This formulation is the most widely used as a pre-clinical catheter lock.

**Y.S. Luo, et. al. AALAS 2000 Comparison of Catheter Lock Solutions in Rats. Not for human use – animal research use only*

MODEL	DESCRIPTION
HGS	Cath-Loc HGS, 10ml vial

Cath-Loc HD: Heparin/Dextrose Catheter Lock Solution



Cath Loc HDS acts as a non-toxic anticoagulant lock solution for indwelling catheters for pre-clinical research. This is one of the most common formulations used as a reliable pre-clinical lock solution to maintain catheter patency in vascular catheters. This solution, used in both large and small animals, combines the high viscosity of 50% dextrose with the anticoagulant activity of heparin to promote and extended implanted catheter patency. The high osmolality of dextrose prevents bacterial colonization and multiplication and the high

viscosity of dextrose reduces washout from the catheter tip. The heparin in the solution also aids in prevention of clot formation. Since both dextrose and heparin are physiological constituents which occur naturally in the blood, any excess Cath-Lock HDS injected is quickly metabolized, when used properly. Available in 10ml sterile vials.

MODEL	DESCRIPTION
HDS	Cath-Loc HD, 10ml vial

New! TCS Anti-Microbial Lock Solution

Providing patency and infection control



TCS, a catheter lock solution, combines two active ingredients vital to the effective management of vascular access catheters; Taurolidine and Citrate. When TCS is instilled in device lumens, their internal flow passages are resistant to clot formation and hostile to bacterial and fungal growth. TCS is non-toxic and there are no known systemic effects. Taurolidine, an anti-microbial agent, promotes catheter patency by preventing Biofilm formation while Citrate, acts as the anticoagulant.

Taurolidine component offers broad spectrum antimicrobial activity against aerobic and anaerobic gram-positive and gram-negative bacteria, yeast and fungi. Prevents biofilm development and consequently bacterial and fungal colonization, decreasing the risk of infection does not induce the development of resistant microbes.

Citrate component forms a complex with calcium, disrupting the normal coagulation cascade, precipitating it into an unusable form inhibiting blood coagulation with no systemic effect.

MODEL	DESCRIPTION	UNITS
TCS	Taurolidine-Citrate Solution used for catheter lock solution (1 box/10 vials)	7 ml vial



Prefilled Syringes

Prefilled syringes for flushing, locking or sampling through any catheter or port system. Order what you need when you need it, in convenient, ready to use packaging. Syringe sizes range from 1cc-60cc with volumes from 0.2ml-60ml.

- ▶ Forget ordering and storing saline and other physiologic solutions in large, inconvenient containers
- ▶ Forget wasting time unwrapping countless individually wrapped syringes for your daily procedures
- ▶ Forget mixing sterile solutions and filling them in a less than sterile environment
- ▶ Catheter patency issues that arise two weeks after surgery or longer are most likely caused by poor maintenance procedures and not related to surgery



Prefilled syringes can be filled with most any solution including saline, heparin/saline, dextrose, heparin/dextrose, and many others.

MODEL	SYRINGE SIZE	FILL VOL	HEPARIN	UNITS/CS
Saline (0.9%) Filled Syringe				
SYS-1-0.5	1cc	0.5cc	—	100
SYS-1-0.5	1cc	0.5cc	—	300
SYS-1-1.0	1cc	1cc	—	100
SYS-1-1.0	1cc	1cc	—	300
SYS-3-2.0	3cc	2cc	—	100
SYS-3-2.0	3cc	2cc	—	300
SYS-3-3.0	3cc	3cc	—	100
SYS-3-3.0	3cc	3cc	—	300
SYS-5-3.0	5cc	3cc	—	100
SYS-5-3.0	5cc	3cc	—	300
SYS-5-5.0	5cc	5cc	—	50
SYS-10-10.0	10cc	10cc	—	30
SYS-60-60.0	60cc	60cc	—	10

Heparin & Saline Filled Syringes				
SYH-50-0.5	1cc	0.5cc	50u/ml	100
SYH-50-0.5	1cc	0.5cc	50u/ml	300
SYH-50-1.0	1cc	1cc	50u/ml	100
SYH-50-1.0	1cc	1cc	50u/ml	300
SYH-50-2.0	3cc	2cc	50u/ml	100
SYH-50-2.0	3cc	2cc	50u/ml	300
SYH-50-3.0	3cc	3cc	50u/ml	100
SYH-50-3.0	3cc	3cc	50u/ml	300
SYH-100-0.5	1cc	0.5cc	100u/ml	100
SYH-100-0.5	1cc	0.5cc	100u/ml	300
SYH-100-1.0	1cc	1cc	100u/ml	100
SYH-100-1.0	1cc	1cc	100u/ml	300
SYH-100-2.0	3cc	2cc	100u/ml	100
SYH-100-2.0	3cc	2cc	100u/ml	300
SYH-100-3.0	3cc	3cc	100u/ml	100
SYH-100-3.0	3cc	3cc	100u/ml	300
SYH-300-0.5	1cc	0.5cc	300u/ml	100
SYH-300-0.5	1cc	0.5cc	300u/ml	300
SYH-300-1.0	1cc	1cc	300u/ml	100
SYH-300-1.0	1cc	1cc	300u/ml	300
SYH-300-2.0	3cc	2cc	300u/ml	100
SYH-300-2.0	3cc	2cc	300u/ml	300
SYH-300-3.0	3cc	3cc	300u/ml	100
SYH-300-3.0	3cc	3cc	300u/ml	300
SYH-500-0.5	1cc	0.5cc	500u/ml	100
SYH-500-0.5	1cc	0.5cc	500u/ml	300
SYH-500-1.0	1cc	1cc	500u/ml	100
SYH-500-1.0	1cc	1cc	500u/ml	300
SYH-500-2.0	3cc	2cc	500u/ml	100
SYH-500-2.0	3cc	2cc	500u/ml	300
SYH-500-3.0	3cc	3cc	500u/ml	100
SYH-500-3.0	3cc	3cc	500u/ml	300

Blunt Needles with Syringe



Attached blunt needles on 1cc syringes not only save tremendous amounts of time but will also help lower costs.

Additional size syringes are available and can be supplied with any size blunt needle. All syringes are capped and ETO exposed. Call for additional sizes.

MODEL	SIZE	GAUGE	LENGTH	QTY/PK
B20-50-1	1cc	20	0.5"	25
B20-100-1	1cc	20	1"	25
B22-50-1	1cc	22	0.5"	25
B22-100-1	1cc	22	1"	25
B23-50-1	1cc	23	0.5"	25
B23-100-1	1cc	23	1"	25
B25-50-1	1cc	25	0.5"	25
B25-100-1	1cc	25	1"	25

Zero and Minimal Dead Volume Syringes



Z1-22 Zero Dead Volume



Z1-MDV-CC Minimal Dead Volume

Zero dead volume sterile syringes offer researchers the ability to completely remove all fluid from the syringe for zero test article or blood loss.

MODEL	DESCRIPTION	UNITS/PK
Z1-22-PK	1cc Zero Dead Volume Syringe with 22G connector . . .	25
Z1-22-CS	1cc Zero Dead Volume Syringe with 22G connector . . .	100
Z1-CC	1cc Zero Dead Volume Syringe without connector	10
Z1-MDV-CC	1cc Minimal Dead Volume Syringe without connector . .	10



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New! Rodent Port

Small, light-weight access ports designed specifically for rodent studies.

Penny MousePort for intravascular and peritoneal access



Penny MousePort incorporates two major design breakthroughs; a unique septum design and an all silicone port body. MousePort is provided with preattached silicone catheters, in sizes 1-4 French.

- ▶ Low profile
- ▶ Small size and weight
- ▶ Biocompatible oval shape
- ▶ Easy port entry into the smallest mouse
- ▶ Small dead volume
- ▶ Reduces infusate volume
- ▶ Unique septum offering 180° access
- ▶ Stainless steel needle guard protection
- ▶ Ideal for both intravascular and peritoneal access
- ▶ Avoids repeated tail vein catheterization

Specifications:

Material: all silicone with a stainless steel needle guard

Weight: 1g

Volume: 100ul

Height: 0.28"/0.7cm

Septum Opening: 180° access (1.2cm x 0.4cm)

Footprint: 2cm x 1.1cm

Catheter Material: Preattached silicone catheter

Catheter Configuration: 1-4 French

MODEL	DESCRIPTION
-------	-------------

Silicone V-A-P MMP Model Mouseport preattached models

MMP-1S	1F Silicone Catheter x 6"/15cm
MMP-2S	2F Silicone Catheter x 6"/15cm
MMP-3S	3F Silicone Catheter x 6"/15cm
MMP-4S	4F Silicone Catheter x 6"/15cm

Rat-O-Port for intravascular and peritoneal access

Rat-O-Port's rounded port chamber has been shown to prolong patency by preventing sludge formation. The Rat-O-Port can be provided with preattached or attachable polyurethane or silicone catheters, rounded or blunt tip, in sizes 1-5 French.



- ▶ Low profile and light weight
- ▶ Reduces incidence of skin necrosis
- ▶ Rounded port reservoir and tangential catheter outlet
- ▶ More complete flushing reduces complications
- ▶ Ringed septum easy to palpate
- ▶ Provides easy access during needle insertion
- ▶ Ideal for long-term access procedures
- ▶ Tested to 350 punctures with a 24 gauge huber needle
- ▶ Avoids repeated venipuncture
- ▶ Promotes animal welfare
- ▶ Ideal for both intravascular and peritoneal access
- ▶ Avoids repeated tail vein catheterization

Specifications:

Material: Plastic with stainless steel catheter pin

Weight: 1.5g

Volume: 0.11cc

Height: 0.35"/0.9cm

Septum Opening: 0.3"/0.8cm

Footprint: 0.7"/1.7cm

Catheter configuration: Rat-O-Port models can be ordered with catheters that are preattached during manufacture or attachable/Ac - to be attached during surgery

Catheter material: Rat-O-Port models can be ordered with silicone, polyurethane, or hydromer coated in sizes 1-7 French

Catheter tip configuration: Blunt or rounded tip

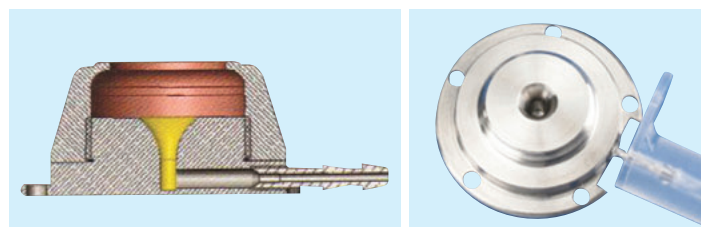
MODEL	DESCRIPTION
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Plastic V-A-P ROP Model Rat-O-Port preattached and attachable models

ROP-1S/1P	1F Silicone/PolyUrethane Catheter x 6"/15cm
ROP-2S/2P	2F Silicone/PolyUrethane Catheter x 6"/15cm
ROP-3S/3P	3F Silicone/PolyUrethane Catheter x 6"/15cm
ROP-4S/3.5P	4F Silicone/ 3.5F PolyUrethane Catheter x 6"/15cm
ROP-2H	2F Hydrocoat PolyUrethane Catheter x 6"/15cm
ROP-3H	3F Hydrocoat PolyUrethane Catheter x 6"/15cm
ROP-3.5H	3.5F Hydrocoat PolyUrethane Catheter x 6"/15cm
ROP-2IS	2F Silicone Radiused Tip Catheter x 6"/15cm
ROP-3IS	3F Silicone Radiused Tip Catheter x 6"/15cm
ROP-4IS	4F Silicone Radiused Tip Catheter x 6"/15cm

New! LoVol™ Port

Ultra-low dead volume port for CSF infusion and withdrawal



Ultra-low dead volume of Lovol Port is the port of choice for any application requiring minimal dead volume, i.e. an unusually expensive test article of CSF collection. Available in 2 sizes, MIN-LoVol and MID-LoVol, with reservoir volume only 10% of the Solomon MIN and MID standard SoloPorts. LoVol ports can be accessed with standard 22ga and 24ga huber needles and infusion sets.

MODEL	DESCRIPTION
-------	-------------

MINLOA-C30	Mini Port only- attaches to a 3F catheter
MINLOA-C35	Mini Port Only- attaches to a 3.5F catheter
MINLOA-PU-C30	Mini Port with a 3F round tip 60cm polyurethane catheter with moveable bead
MINLOA-PU-C35	Mini Port with a 3.5F round tip 60cm polyurethane catheter with moveable beads



Collars, Tethers, Slings and Harnesses

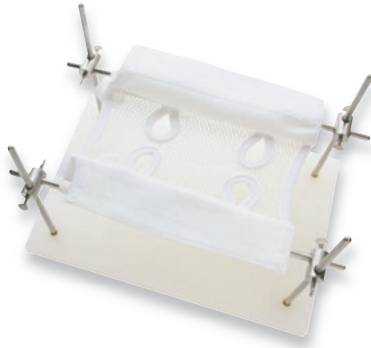
Rodent Sling and Restraint Cover

Slings can be used to securely restrain rodents during many procedures. Choice of restraint in many sizes and range of adjustment make rodent sling a valuable asset to any laboratory setting.

Other small animal species may also be restrained using same frame with suits and slings available for mice and guinea pigs.

Frame: Polypropylene base with supports made from stainless steel, one inch thick base material provides a robust support that does not move. Stainless supports and connectors held with convenient thumbs screws allow for height adjustments. Frame is easily cleaned and dismantles when not in use.

Restraints: Full body restraint is provided with choice of either sling suit or sling cover. Both restrainers allow for access to all limbs, head and tail. Velcro fasteners allow for quick and secure restraint and adjustable fit for individual animals. Sling suits are sold in five sizes according to weight range of animals. Rodent Sling Cover is available in single size for rats up to 500g. Custom sizes available on request.



MODEL	DESCRIPTION
RSL-FS1	Rodent Sling - frame and cover
RSL-FC01	Rodent Sling Cover only
RSL-FC1	Rat Sling Suit Small, 150-200g
RSL-FC2	Rat Sling Suit Medium, 250-350g
RSL-FC3	Rat Sling Suit Large, 350-500g
RSL-FC4	Rat Sling Suit X-Large, 500g+
RSL-C00	Mouse Sling Suit
RSL-C03	Mouse Sling Suit Large, 30g+

Rodent Jackets



Manufactured from breathable, latex-free power net mesh in a saddle-style format. Designed for use with rodent tethers and available in a range of sizes to ensure a secure yet comfortable fit.

MODEL	DESCRIPTION
RJ-M01	Mouse up to 25g
RJ-M02	Mouse 25-30g
RJ-M03	Mouse 30+g
RJ-S	Rat 150-250g
RJ-M	Rat 250-350g
RJ-L	Rat 350-500g
RJ-XL	Rat 500+g

Rodent Tail Cuffs

Constructed of stainless steel with self-threading tether attachment point. Used as an alternative to the rodent jacket.



MODEL	DESCRIPTION
TC-RT-T1	Rat Tail Cuff
TC-MT-T1	Mouse Tail Cuff
TC-RTC-1	Light Weight Rodent Tail Cuff, anodized aluminum
TC-RTC-2	Tapered Stainless Steel Rodent Tail Cuff, 16mm OD – 14mm ID

Elizabethan Collars

Designed to prevent animals from grooming and to protect surgical or treatment sites. All collars are manufactured from a low-density polyethylene, for smaller animals a lightweight material is used. Collars close with Velcro fasteners providing adjustable and secure fit for individual animals. Neck openings are bound with cotton jersey for comfort and light padding.



MODEL	DESCRIPTION
EC-M1	Elizabethan Collar for Mice 2.75"
EC-R1	Elizabethan Collar for Rats up to 450g - 4.625"
EC-R2	Elizabethan Collar for Rats 450g+ - 5.125"

Swivel

Rodent swivels are made from durable plastic and are fitted with a 20g or 22g needle. Designed for long-life and repeated usage. Sterile packaged.

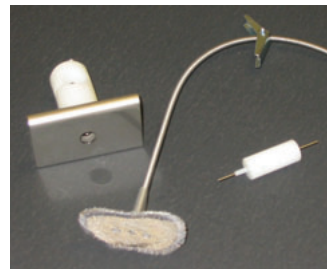
MODEL	DESCRIPTION
RS-20G	Gas Sterilized 20g
RS-22G	Gas Sterilized 22g

Swivel Mount

Rodent swivel mount secures to the outside of the cage. Comprised of a retainer made of durable plastic with a stainless steel clip.

MODEL	DESCRIPTION
RSM	Rodent Swivel Mount

Tethers



Constructed from lightweight stainless steel spring-coil, rodent tethers come complete with a crimped end for direct attachment to the rodent swivel (removing the need for potentially troublesome connection hardware). Jacket anchors comes ready sewn with silver woven fabric for added comfort and resistance to

opportunistic infection. Rodent tethers are designed to protect the exteriorized catheter and can be used with rodent jackets.

MODEL	DESCRIPTION
RT-12	Tether 12" sewn
RT-18	Tether 18" sewn

LOMIR Butterfly Harness

A versatile product; created from One Strap™ Velcro for making a simple to use mouse harness suitable for the majority of mice commonly used in research. Butterfly harnesses' versatility extends to a wide range of applications; originally designed to protect excisions during healing. The harness is compatible with infusion systems and those for dermal applications.



MODEL	DESCRIPTION
MHBF00	Mouse Butterfly Harness (single piece back to back Velcro™) - one

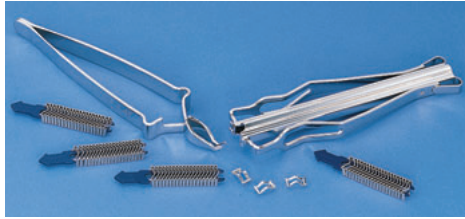
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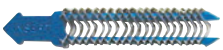
EZ Clip™

Ideal for use with lab animals or in veterinary surgery



Autoclip® and EZ Clip™

Racks of 9mm clips are individually packaged in heat sealed, peel-away sleeves for cleanliness, ease of handling and storage. EZ Clips™ are packaged 20 clips on



a rack, with 5 racks per strip (100 clips total).

They can be purchased by the strip, 2 strips (200 clips) or by the case (1000 clips). Clips are pyrogen free and non-sterile. However, the autoclavable plastic packaging allows for sterilization of the clips without removing them from the packaging. The Clip Applier is a stainless steel applying forcep that holds one rack of 20 clips. Works like a staple gun to apply clips to wound. The clips are fed by rustless beryllium-copper springs. The Clip Remover is also stainless steel and can be used to remove all sizes of wound clips.

MODEL DESCRIPTION

EZC-KIT	EZ Clip Kit
EZC-APL	Clip Applier
EZC-RMV	Clip Remover
EZC-SL	EZ Clips, Non-Sterile, 20 Racks (200 clips)
EZC-CS	EZ Clips, Non-Sterile, Case (1,000 clips)

Reflex 7mm Wound Closure System

For those who prefer the smaller clip; the Reflex 7mm Skin Closure System is the right choice.

MODEL DESCRIPTION

RF7-APL	Applier
RF7-CS	Case of 100/box
RF7-RMV	Remover
RF7-KIT	Includes applier, remover and 100 clips



Autoclip® Wound Closing System



The Autoclip® Applier works like a staple gun to rapidly apply Autoclip closures. The applier will hold 20 Autoclips, which are held firm and ready for use by rustless beryllium-copper springs.

Autoclips provide maximum holding force with minimal trauma. There is no need for assistance to operate the applier or remover. When the wound is healed, clips are easily removed with the Autoclip Remover. Stainless steel Autoclips are non-pyrogenic and supplied non-sterile, but may be autoclaved. Ideal for use with laboratory mice and rats.

MODEL DESCRIPTION

ACS-KIT	Autoclip Starter Kit (includes applier, remover, and 1,000 clips)
ACS-APL	Autoclip Applier
ACS-RMV	Autoclip Remover
ACS-BX	Autoclips 100/box
ACS-CS	Autoclips 1,000/case

Basic Sutures for Small Animal Surgery



Non-absorbable natural silk

The softness of natural silk has been preserved in this high-grade suture.

Spools

MODEL	SIZE	MATERIAL	LENGTH
SUT-S-103	7-0	Silk	100 yds
SUT-S-104	6-0	Silk	100 yds
SUT-S-106	5-0	Silk	100 yds
SUT-S-108	4-0	Silk	100 yds
SUT-S-110	3-0	Silk	100 yds
SUT-S-113	2-0	Silk	100 yds
SUT-S-116	0	Silk	100 yds
SUT-S-119	1	Silk	100 yds

Spools with swagged needles

MODEL	DESCRIPTION	SIZE	MATERIAL	LENGTH
SUT-1074	0.375" circle reverse cutting	3-0	Silk	18"
SUT-7116	0.5" circle taper point double needle	4-0	Silk	24"
SUT-9403	Straight taper	3-0	Silk	30"

Surgical Instruments



Technocut® Plus Disposable Safety Scalpels

The safety and performance you need



- ▶ Fully extended blade enables clear line of sight
- ▶ Top activation allows for ambidextrous use
- ▶ Fully enclosed front enhances blade stability and security
- ▶ Audible clicks help confirm proper blade position
- ▶ Final lock for safe handling and disposal
- ▶ Non-slip ergonomic handle with metric scale
- ▶ Color coded slider button for easy blade size identification

- ▶ Highest quality standards
- ▶ Uses premium GLASSVAN® blades. Computerized grinding and proprietary polishing processes for the blades ensure consistent, clean, sharp cutting edges
- ▶ Scalpel blades produced from high quality, high durability Swiss stainless steel
- ▶ Scalpels manufactured in ISO 13485 certified facilities

MODEL SIZE

SSS-10	#10
SSS-11	#11
SSS-12	#12
SSS-15	#15
SSS-20	#20

*10 sterile scalpels per box, 5 boxes per case



Disposable Stainless Steel Safety Scalpel

Engineered for safety and simplicity. Complies with the OSHA directive by providing a fully retractable scalpel blade, which protects the user from accidental needle sticks associated with traditional scalpels.

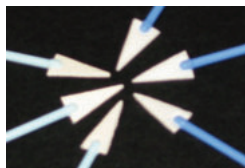
Reusable sterile stainless dissecting surgical blades and handles also available – call for size and pricing.

Supplied sterile. Single use.



MODEL	SIZE
4-510	#10
4-511	#11
4-515	#15

Surgical Spears



Disposable, super absorbent surgical spears for use during ophthalmic and other microsurgical procedures. Available in cellulose and PVA.

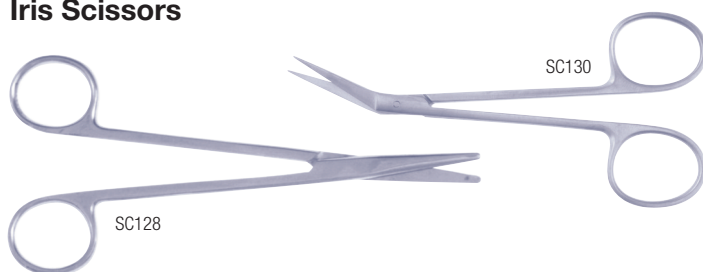
Supplied sterile.

MODEL	DESCRIPTION
SP-40400	PVA Surgical Spears
SP-40410	Cellulose Surgical Spear

*5 spears per pack, 20 packs per box.

Specialty Scissors

Iris Scissors



For precise vascular and neurological dissection. Ideal for small specimens. 4.5", (114.3mm)

MODEL	DESCRIPTION
SC-I-128	Std. Pattern, Straight
SC-I-129	Std. Pattern, Curved
SC-I-130	Std. Pattern, Angled

Scissors

SuperCut Scissors

Manufactured with the highest grade surgical stainless steel. Tempered and hardened for a longer sharper life. The SuperCut blade has a specially designed razor sharp edge.

Tungsten Carbide Scissors

Unique tungsten carbide cutting edges provide effortless yet accurate cuts through the toughest tissue. Shanks are tempered to allow proper flexibility and comfort. Finger rings are well rounded and polished allowing better feel while preventing finger fatigue.

MODEL	DESCRIPTION
SuperCut Surgical Scissors - Sharp/Blunt	
SCT-S-508	Surgical Scissors - Straight 5.5" (139.7mm)
SCT-S-511	Surgical Scissors - Curved 5.5" (139.7mm)
SuperCut Metzenbaum Scissors - Delicate	
SCT-M-523	Straight, 4.5" (114.3mm)
SCT-M-525	Curved, 4.5" (114.3mm)
SuperCut Iris Scissors	
SCT-I-528	Straight 4.5" (114.3mm)
SCT-I-529	Curved 4.5" (114.3mm)
Tungsten Carbide - Iris Scissors	
SC-T-405	Straight, 4.5" (114.3mm)
SC-T-406	Curved, 4.5" (114.3mm)

Dissection Scissors

Metzenbaum Scissors

Offering a unique combination of narrow blunted points along with thin delicate shafts for delicate dissection and minimal damage to surrounding tissues.

MODEL	DESCRIPTION
SC-M-125	Curved, Delicate, 5.5" (139.7mm)
SC-M-126	Curved, Delicate, 7" (177.8mm)
SC-M-180	Curved, Std. Pattern, 5.5" (139.7mm)
SC-M-182	Curved, Std. Pattern, 7" (177.8mm)

Micro Clip Setting Forceps

MODEL	DESCRIPTION
FC148	4.75"L

Micro Vascular Clips

MODEL	OCCCLUSION PRESSURE	VESSEL DIA.	LENGTH
MVC-00	10-15g	1mm	8mm
MVC-02	15-20g	1-2mm	11mm
MVC-04	20-30g	2-3mm	14mm

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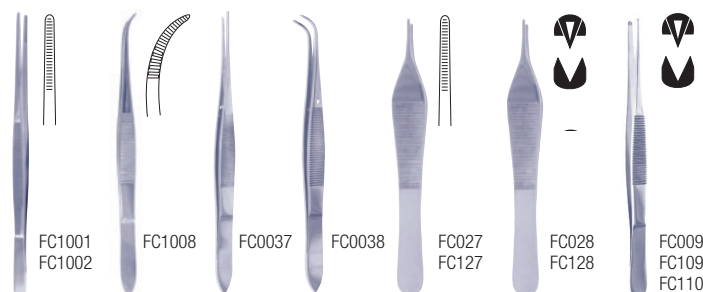
Fax: +33 (0) 820 825 521

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Web: www.bioseb.com



Forceps



Premium Grade Dressing Forceps

Serrated tips and ribbed grip to assist with delicate dissection. Standard pattern, serrated handle.

MODEL	DESCRIPTION
-------	-------------

Standard Pattern, serrated handles

FC-1001	Premium Grade 4.5" (114.3mm)
FC-1002	Premium Grade 5" (127mm)

Curved, delicate narrow tips

FC-1008	Premium Grade 5" (127mm)
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Iris Tissue Forceps

Sharp 1 x 2 interlocking teeth for secure grip with minimal tissue compression.

MODEL	DESCRIPTION
-------	-------------

FC-0037	Straight, 1 x 2 teeth, 4" (101.6mm)
FC-0038	Full curved, 1 x 2 teeth, 4" (101.6mm)

Adson Forceps

Extra broad ribbed grip for delicate precision dissection. Available with serrated or toothed tips.

MODEL	DESCRIPTION
-------	-------------

Standard Grade

FC-027	Dressing, serrated, 4.75" (120.7mm)
FC-028	Tissue 1 x 2 teeth, 4.75" (120.7mm)

Premium Grade

FC-127	Dressing, serrated, 4.75" (120.7mm)
FC-128	Tissue 1 x 2 teeth, 4.75" (120.7mm)

Delicate Specialty Dissection Forceps

MODEL	DESCRIPTION
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Delicate Tissue Forceps

FC-032	Serrated, 5" (127mm)
FC-033	Tissue, 1 x 2 teeth, 5" (127mm)
FC-0341	Fine Point, 4.5" (127mm)

Standard Pattern Tissue Forceps

Secure ribbed grip.

MODEL	DESCRIPTION
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Standard Pattern, Serrated Handles, 1 x 2 Teeth

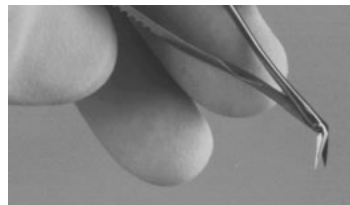
FC-109	Premium, 4.5" (114.3mm)
FC-110	Premium, 5" (127mm)
FC-111	Standard Grade, 4.5" (114.3mm)

Dumont Forceps

MODEL	DESCRIPTION
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FC-5005	109mm Inox, 45° angle, tip 0.05 x 0.01mm
FC-5058	109mm Dumoxel, 45° angle, tip 0.10 x 0.06mm
FC-5043	110mm Inox, straight, 11cm

Micro Instruments



Micro Scissors

Very delicate scissors for precision dissection. Excellent for small animal dissection.

MODEL	DESCRIPTION
-------	-------------

Micro Iris Scissors

SC-MI-150	Straight, sharp points, 4" (101.6mm)
SC-MI-151	Curved, sharp points, 4" (101.6mm)

Micro Scissors

SC-MS-152	Straight, superfine blades, 3.25" (82.5mm)
SC-MS-153	Curved, superfine blades, 3.25" (82.5mm)
SC-MS-154	Right Angle 4"
SC-MS-155	Left Angle 4"

Premium Grade Micro-Tissue Forceps

FC-145	Curved Tip 4.25" (107.95mm)
FC-146	Narrow Fine Tip 4.25" (120mm)
FC-147	Super Fine Tip 4.25" (107.95mm)

Alm Retractor

Specifications:

Spread: 2.75" (7cm)

Prongs: 2.25" (5.7cm)

Depth: 0.125" (0.32cm)



MODEL	DESCRIPTION
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ALM-112	Alm Retractor
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Instrument Cases

Biocon: Extremely durable; easy to open, yet remains tightly shut when not in use.

MODEL	DESCRIPTION
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CS-7550	Holds up to 8 instruments in separate compartments
CS-7575	Holds up to 10 instruments in separate compartments

Zippered: Velveteen-lined case with "leather-look" vinyl exterior; zips closed around three sides

MODEL	DESCRIPTION
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CS-7700	Holds up to 12 instruments
---------	----------------------------

Bone Wax

- ▶ Bone wax is used to control bleeding in procedures that involve cutting through bones, such as thoracic, neurosurgery, orthopedic, oral and maxillofacial surgeries.

- ▶ Soft and easy to form and apply.

- ▶ Each easy-to-open foil package contains 2.5 grams of wax.



MODEL	DESCRIPTION	QTY
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DYNJ-BW26	Sterile Synthetic Bone Wax.	12/bx
DYNJ-BW25	Sterile Natural Non-Bleached Beeswax	12/bx



Ideal Micro-Drill™



Designed for research applications that require surgical burrs and trephines. Drill is constructed of light-weight aluminum alloy for balance and control and powered by a rechargeable 6-volt nickel cadmium battery. Under normal operating conditions unit will function for 8 hours between charges. Drill comes with five burrs: 0.006mm, 0.008mm, 0.010mm, 1.012mm, 1.016mm

- Rechargeable
- Light-weight design
- No special tools needed to change burrs
- Hard plastic case with die-cut foam for convenient storage
- Excellent balance and handling

Specifications:

Length (without burr): 17.5cm

Diameter: 1.9cm

Power: 6-Volts DC

Speed: 12,000 rpm

Stall torque: 1.25 oz/in

MODEL	DESCRIPTION
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MD-1200	Ideal Micro-Drill™
---------	--------------------

Sentry Ultrasonic Cleaner

Sentry Ultrasonic Cleaner is a high-efficiency cleaner specially developed to clean surgical instruments. Ultrasonic waves pump micron-sized bubbles into the water. Bubbles fit into the tightest spaces which would be impossible to clean by traditional methods. When bubbles implode, water hits the instrument at speeds up to 250 mph providing a very powerful cleaning action.

- High-capacity elongated tank easily accommodates long surgical instruments and other equipment that may not fit into desktop ultrasonic cleaners.
- Uses a powerful generator to create ultrasonic waves that provide effective cleaning action. When heavy bio-burden or oily residue is present, Sentry's cleaning power can be enhanced with a heating feature that warms water up to 65°C.
- Operates quietly without disrupting work in laboratory. Lid decreases noise and includes a viewing window to monitor progress.
- Takes up little space for convenient storage on lab bench. Light weight for easy transport or storage.

MODEL	DESCRIPTION
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ULTRA-9911	Sentry Ultrasonic Cleaner
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Infrared Microsterilizer



BactiZapper™ has an asbestos-free core element that uses infrared heating to produce 815°C (1500°F). It completely sterilizes

micro-organisms in 5-7 seconds. BactiZapper uses well-proven technology to provide instant sterilization of platinum inoculating loops, needles, glass tube pipette mouths and various metal and borosilicate glass instruments. Ceramic heating element is safely enclosed in a perforated stainless steel guard chamber, protecting users from accidental contact with extreme temperatures of the core area. It is extremely compact, convenient and can be used in anaerobic and aerobic chambers.

- Complete infrared sterilization in 5-7 seconds
- Safe, convenient and no spatter
- Ideal for platinum loops, needles and tube mouths

Specifications:

Max temperature: 815° C/1500° F

Sterilization: 5-7 secs

Chamber diameter: 0.55"/14mm

Chamber length: 3.94"/100mm

External dimensions: 4" x 6" x 6.5"



MODEL	DESCRIPTION
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B1000	BactiZapper Infrared Microsterilizer
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Germinator 500

Dry sterilize surgical instruments in seconds



NIH guidelines recommend sterilizing instruments for small animal surgery. Hot glass bead sterilizers are ideal for this application.

Stays cool to the touch - the chassis stays cool, even at the end of a full day of operation. Air above unit is cool enough to insert an instrument into well without discomfort. Insert surgical instrument into well, sterilization of inserted parts by dry heat (250°C) takes 2-5 seconds. Handles of instruments, outside heat, do not get hot. Metal in beads is heated only on

the surface, not to the depth, so cooling is quick after removal. Within 30 seconds, surgical instruments are cool enough to use.

Specifications:

Warm up time: 20 min.

Working temp: 250°C (approximately 500°F)

Sterilization time: 2-5 sec.

Well size: 20cm deep x 5cm diameter.

Beads eventually, after extensive use, wear to powder. Replace when it becomes difficult to push instruments in deep enough.

MODEL	DESCRIPTION
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GER-5287	Dry Sterilizer
GER-5289	Glass Bead Refill Package

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Gemini Cautery System

Dual Operating Temperatures



Battery operated system provides two different operating temperatures: 1300°F and 2200°F. Easily replaceable, autoclavable, nickel-chrome tips require less power and provide longer battery life. Convenient battery spacer converts hand piece from high temp to low temp. Comes complete with standard AA batteries, battery spacer, 2 each tips -

sizes 5mm and 10mm, all in a hard plastic case with die cut foam for convenient storage.

MODEL	DESCRIPTION
GEM-5917	Gemini Cautery System
GEM-5918	Replacement Tips, 5 x 1mm (box of 10)
GEM-5919	Replacement Tips, 10 x 1mm (box of 10)

Rat and Mouse Dissection Kits



Rat kit includes: Dumont forceps #5, Vannas scissors, SuperCut iris scissors, straight, Alm retractor, needle holder, blunt probe, zippered case

Mouse kit includes: Dumont forceps #5, Vannas scissors, dissecting scissors, wire retractor, needle holder, blunt probe, zippered case

MODEL	DESCRIPTION
MDK-R	Rat Dissection Kit
MDK-M	Mouse Dissection Kit

Super AGR+ Cordless Rechargeable Animal Clipper with Sensa-Charge

A powerful rechargeable clipper designed for all day heavy-duty use. Clipper will run continuously for one hour with a fully charged battery pack – recharges within one hour. Maintenance free, no oiling or greasing of internal parts. Detachable blades for ease of changing and cleaning. High speed motor, 3600 strokes per minute (3600 rpm). Special refresh button recharges and conditions battery to maximum performance overnight. On/Off switch with lock, break resistant housing, contoured to fit your hand. All Andis® AG and Oster® A5 Blades fit Super AGR+ Clipper. Push button blade release locks blade into position until changing of blade is desired.

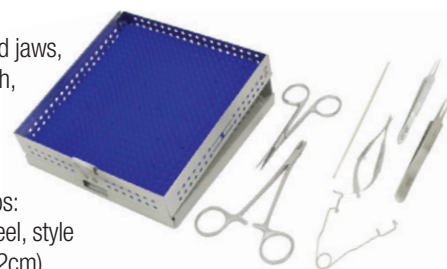


Cordless

Microsurgical Instrument Kit

Includes:

- ▶ DERF needle holder: grated jaws, 4000 teeth per square inch, 4.75" (12.1cm)
- ▶ Iris scissors: straight, 4" (10.2cm)
- ▶ SWISS jeweler style forceps: non-magnetic stainless steel, style 5, micro-fine, 4.375" (11.2cm)
- ▶ McPHERSON micro iris suturing forceps: straight, smooth platform 0.3mm x 5mm, no teeth, 3.5" (8.9cm)
- ▶ McPHERSON-VANNAS micro iris scissors: straight, sharp points, 3.25" (8.3cm)
- ▶ PlainWire eye speculum: blades 15mm wide, 2.5" (6.4cm)
- ▶ Probe: double ended, malleable, sterling, 4.5" (11.4cm)
- ▶ Storage cassette: 6.5" x 6.25" x 1.25"
- ▶ Storage cassette mat



MODEL	DESCRIPTION
MSK-6890	Microsurgical Instrument Kit
MSK-6890-NC	Kit without Storage Cassette and Mat

New! Rodent Dental Kit

Motorized dental kit provides all the necessary instruments to help treat commonly encountered dental problems in rodents.

Kit includes: small, medium and large cheek dilator, mouth gag, periodontal probe, flat and concave tongue spatulas, incisor and molar luxator, 5 piece burr set, burr cones, burr guard, diamond disc, safety shield and case.



MODEL	DESCRIPTION
ECK-177350	Rodent Dental Kit

Clippers and Trimmers



Power Pack is a high capacity battery pack for extended run time. Battery can be charged separately from clipper. Additional rechargeable battery packs available. Home base is equipped with Sensa-Charge® a unique charging system that will not overcharge battery. LED lights indicate charging mode. Recharges and conditions battery to maximum performance.

MODEL	DESCRIPTION
CLP-64800	Super Professional Rechargeable Clipper

Replacement Blades

CLP-64084B	#40 Surgical S/S Detachable
CLP-64071B	#10 Medium Cut Detachable Blade
CLP-64160B	Ultrafine Blade Surgical S/S Detachable

Miscellaneous Accessories

CLP-64710	Super Professional Charger
CLP-64715	Super Professional Battery Pack



Clippers and Trimmers

New! Battery Operated Trimmer Set

Kit includes: Battery operated trimmer, touch-up trimmer, storage base, 6-position attachment comb, 3 attachment combs, 3 AA batteries, blade oil, cleaning brush.



MODEL	DESCRIPTION
CLP-9990	Battery Operated Trimmer Set

Battery Operated Trimmer

Easy to use anywhere. Includes #40 stainless steel blade, tube of oil, batteries and blade brush.



Cordless

MODEL	DESCRIPTION
CLP-22965	Battery Operated Trimmer

Replacement Blades

CLP-22880B #40 S/S Replacement Blade

Rechargeable Trimmer

Quiet, heavy duty, motor-driven rechargeable trimmer equipped with super fine tooth blades for close trimming.

- ▶ Ni-MH battery for superior performance and less memory effect
- ▶ Stainless-steel blades will not rust



Cordless

MODEL	DESCRIPTION
CLP-32375	Rechargeable Trimmer

Replacement Blades

CLP-32350B S/S Replacement "T" Style Blade

Trim'N Go

Portable cordless trimmer has a compact design. Ergonomic shape easily fits into palm of hand. Kit components include square blade, brush, blade oil, blade guard, 1 AA battery, and 2 attachment combs 1/16" and 3/32".



MODEL	DESCRIPTION
CLP-24865	Trim'N Go

Pocket Pro Pet Trimmer

Light-duty trimmer ideal for precision trimming and great for touch-ups

- ▶ Compact size easily fits in palm of hand
- ▶ Cordless battery operated for convenient use anywhere
- ▶ High carbon precision ground steel blades stay sharper longer



MODEL	DESCRIPTION
CLP-9931	Pocket Pro Pet Trimmer

Safe T-Light Trimmer

- ▶ Industry's first illuminating animal trimmer
- ▶ Ultra-bright white, no heat LEDs
- ▶ Dual Beam LEDs for safer, more precise trimming
- ▶ Cord/cordless trimmer can be used with or without cord attached
- ▶ Ni-MH battery for superior performance and less memory effect
- ▶ Carries enough charge for all-day average use; recharges to full power overnight
- ▶ Dual voltage charger included for worldwide use



MODEL	DESCRIPTION
CLP-24090	Safe T-Light Trimmer with #40 S/S Blade

Replacement Blades

CLP-22880B #40 S/S Replacement Blade

CLP-22945B Leaves Hair 0.1mm "T" Style Blade

Professional Clipper

Professional clipper runs so cool, fans and air vents that can become clogged with hair are not needed.

- ▶ Maintenance free - no oiling or greasing of internal parts is needed
- ▶ Includes size #10 detachable blade set
- ▶ All Model AG blade sets are made of high carbon steel, specially hardened for long cutting life
- ▶ Locking switch button will not accidentally shut off
- ▶ 2700 RPM



With Cord

MODEL	DESCRIPTION
CLP-22350	Professional Clipper

Replacement Blades

CLP-64084B #40 Surgical S/S Detachable Blade

CLP-64071B #10 Medium Cut Detachable Blade

CLP-64160B Ultrafine Blade Surgical S/S Detachable Blade

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Small Animal Surgery System



The small animal surgery system sets a new standard of procedural control. The fully integrated procedural and stabilization system provides precisely controlled retraction at the operative site. The CD+ Labs System allows researchers to operate independently eliminating the need for an assistant or

improvised assistive devices. The system removes the complexities and distractions of improvised set-ups, allowing the researcher to focus full attention on the surgical procedure.

- ▶ Eliminates the need for an assistant
- ▶ Reduces setup and procedure time
- ▶ Provides superior control
- ▶ Improves visualization

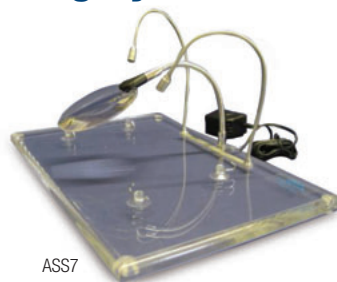
Animal tables are made of ferro-magnetic steel and incorporate a window for compatibility with body temperature maintenance systems.

Fixators hold retractors. Contain rare earth magnets that attach anywhere on the animal table. A push-button top operates multi-level locking jaws that grip wire or elastomers firmly. They can be adjusted linearly or rotationally with finger-tip release. Complete depression of the push-button allows for insertion of the wire or elastomer while partial depression of the push-button allows for adjustment. Fixators can also lock onto other lab components that require stabilization in the surgical setting, such as neurological or rectal probes or anesthesia delivery systems. The magnetic field is well controlled within the fixator to minimize interference with sensitive instrumentation. In fact, at a distance of just a few centimeters, the effects of these small but powerful magnets are completely masked by earth's ever present magnet field.

Retractor wires are formed from light, flexible stainless steel. This simple approach produces an economical instrument that performs its job with minimal clutter, while providing superb control and feel. Retractor wires can be used on their own to retract or manipulate tissue, or fitted to provide a wide range of retractor styles. Retractor wires engage and lock into the fixator jaws at the desired elevation allowing both linear and rotational adjustment over the entire length of the wire. One end of the wire is formed in a loop to provide grip for a gloved hand, and the business end is formed into a right angle hook that can retract on its own or lock to a range of retractor tips. Can also be reformed to create restraints or engage other lab apparatus that need to be secured in the surgical field. Wires are available in 10cm and 14cm lengths for mouse and rat procedures. Retractor tip widths range from 1mm to 7.5mm, plus a single point, sharp tissue hook. Each tip can be locked onto a wire for static retraction or affixed to an elastomer to form a dynamic retractor.

MODEL	DESCRIPTION
ACD-014	Small Animal Set (Mouse)
ACD-015	Medium Animal Set (Rat)

Surgery and Micro Tattooing Platform



ASS7



NTS01

Can be used for surgery, micro manipulations, general micro-utility platform (i.e. organ inspections, dissections, etc.).

- ▶ Flex arm, non-obstructive rimless magnifying glass (main lens: 2.3 X; inset lens: 4.0 X)
- ▶ Non-skid feet for added stability.
- ▶ Universal input power supply (100-240 VAC, 50-60 Hz)

Surgery Platform:

- ▶ Two flexible LED lights - provides direct illumination, no shadows and no heat
- ▶ Limb restraints
- ▶ Size: 9"x13.5"

Micro Tattooing Platform:

- ▶ One Flexible LED light - provides direct illumination with no heat
- ▶ Cup holders (1.5ml)
- ▶ Size: 6" x 9"

MODEL	DESCRIPTION
ASS7	Surgery Platform
NTS01	Micro Tattooing Platform

Dissection Tray:

Add a dissection tray with a wax base pinning surface for *detailed* dissections!



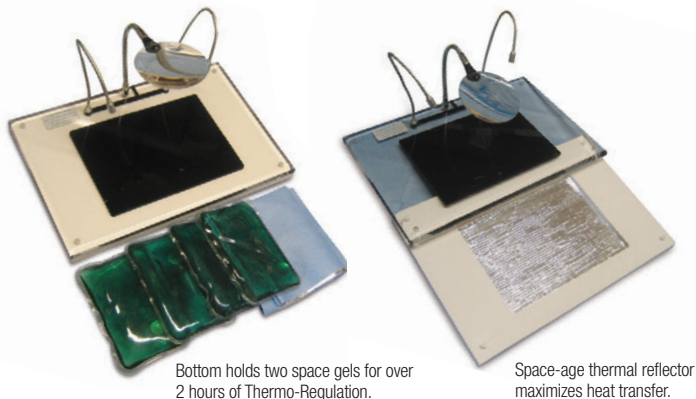
MODEL	DESCRIPTION
DTW1	Dissection Tray 9.5" x 7" x 1"
DTW5	Dissection Tray (five trays per pack)



Surgical Tables and Boards

Thermo Controlled Surgery Platform

Easily maintain animal body temperature during surgery!



Bottom holds two space gels for over 2 hours of Thermo-Regulation.

Space-age thermal reflector maximizes heat transfer.

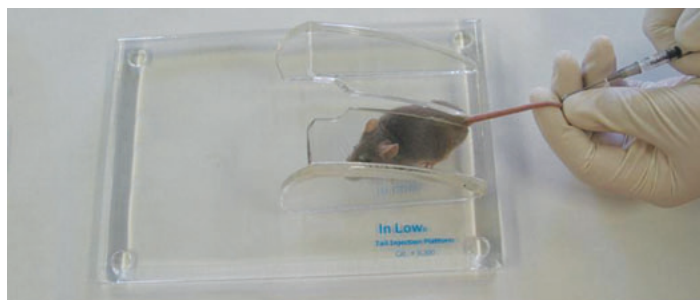
- ▶ Two flexible LED lights provide direct illumination with no shadows and no heat
- ▶ Thermo reflector and turbo heat sink to maximize heat transfer
- ▶ Flex arm, non-obstructive rimless magnifying glass, 2.3 X main lens, 4.0 X inset lens. Allows continuous eye contact with object when moving into magnification area
- ▶ Limb restraints
- ▶ 4 Space Gels for continuous heat
- ▶ 2 Space Blankets to retain heat
- ▶ Non-skid feet for added stability
- ▶ Universal input power supply
- ▶ Size: 13.5"L x 9"W

MODEL	DESCRIPTION
ASS7T	Thermo Control Surgery Platform with Space Gels
SPGL-S	Space Gel Pad 4" x 6"
SPGL-M	Space Gel Pad 5.5" x 10"
SP-DR	Space Drape 3.5" x 10", (2 drapes per pack)
ASS7D	Thermo Control Surgery Platform with Deltaphase Pads
DPIP	Deltaphase Isothermal Pad 6" x 7.5"

See microscope section for digital microscope attachments.

Tail Vein Injection Platform

*The quickest and easiest restraint for tail vein injections.
Simply pull mouse tail through the slot and make injection!*

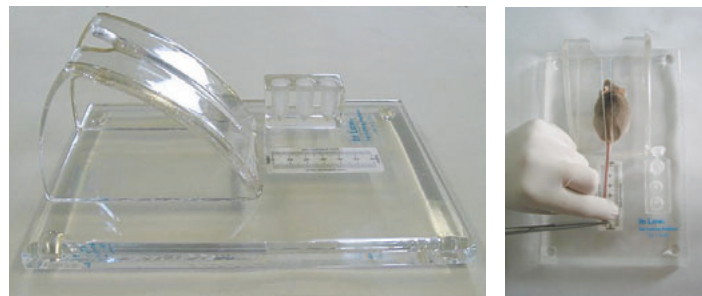


- ▶ Non-grip surface
- ▶ Wide opening for easy access
- ▶ Open slot for easy cleaning feces and urine easily washed away

MODEL	DESCRIPTION
IL-300	Tail Vein Injection Platform

Tail Snipping Platform

For isolating DNA from transgenic animals for genotyping

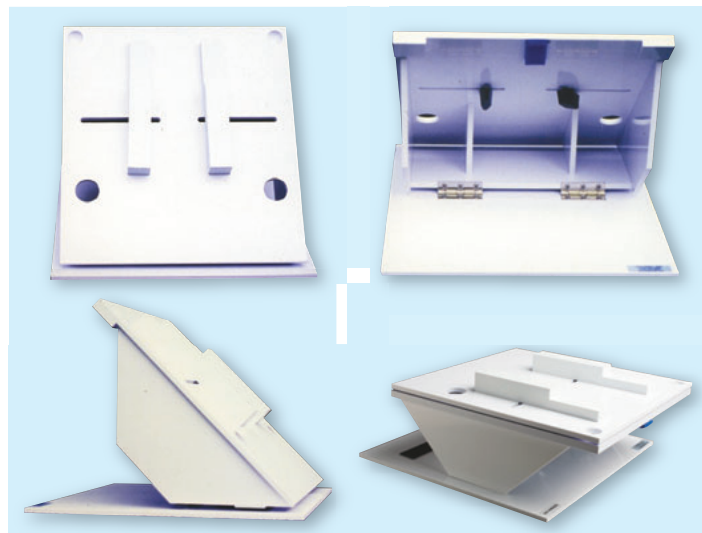


Simply pull mouse tail through the slot, measure and collect tip in the vial.

- ▶ **Micro Tube Holder:** Collect tail tip directly in the prelabeled tube preventing DNA cross contamination
- ▶ **Measuring Ruler (mm):** Accurately measure tail length for cutting. Enhances IACUC compliance
- ▶ **Cleaning Slot:** Feces and urine are easily washed out with stream of water (minimizes cross contamination)

MODEL	DESCRIPTION
IL-200	Tail Snipping Platform

Rodent Work Stand



Rodent Work Stand is designed to support rats, mice and similar small rodents in a stable and comfortable position for the technician during endotracheal intubation and intratracheal dose instillation and other similar procedures. 12" wide x 14" deep x 5.375" high when flat, tilted it is 9.5" high. (Flat: 30.48cm x 35.56cm x 13.65cm, tilted: 24.13cm high)

Heated work stand kit converts this work stand to a heated work stand.

MODEL	DESCRIPTION
RW-A3467	Rodent Work Stand
RW-HHP	Heated Pad Kit

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Web: www.bioseb.com



BioLite Stand

Simple durable stand is easy to clean, store, and is portable



Constructed from durable polycarbonate, this platform provides the perfect stage for intubating mice and rats of all sizes.

The animal is suspended from the incisor wire on the angled side of the stand. Three mounting positions are available to customize the placement of the animal on the stand in order to meet the user's needs. Two sets of posts are provided with each stand.

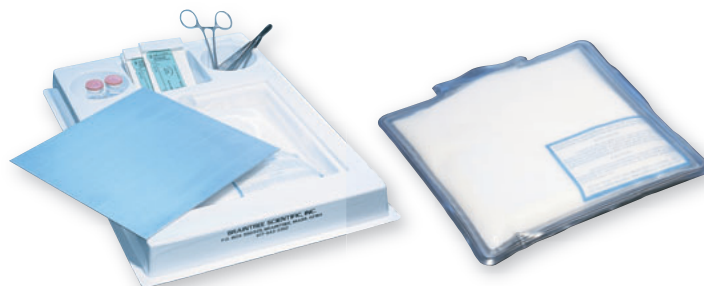
Each post has three positions for the height adjustment to optimally accommodate user and animal.

Stand is constructed from a single piece of polycarbonate plastic with a seamless design. The top of the stand provides a hand rest for stabilization during intubation that is designed to support significant weight. Compact seamless design and its construction make this stand easy to clean. Will not crack with the use of harsh cleaning agents as with similar stands constructed from acrylic.

MODEL	DESCRIPTION
-------	-------------

RIS-100	For Mice
RIS-200	For Rats

Deltaphase® Operating Board



This compact operating board takes advantage of the Deltaphase principle to maintain animal body temperature during surgical or experimental procedures. An 8.5" square stainless steel operating surface lies in contact with an activated Deltaphase isothermal pad. The underside of the pad is insulated to provide a longer isothermal period. Molded wells are provided for sponges, instruments and anesthetic apparatus.

This board was designed by research scientists to be functional, durable, and easy to clean. Its low cost and safety make it appropriate for use in student laboratories. The unit is supplied with two Deltaphase pads. Each pad is 8" x 8" x 0.75"

MODEL	DESCRIPTION
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39 OP	Operating Board, 2 Deltaphase Pads and 2 Insulators
39 DP	Includes 3 Deltaphase Pads and 3 Insulators only (no board)

Instruments shown not included.

Restrainers



DecapiCones®

The economical mouse and rodent restrainer



DC-200



MDC-200

Make injections and decapitation quicker and easier with Braintree Scientifics DecapiCones. Tapered plastic film tubes provide quick and easy restraint of rats, mice, and other small animals. I.P. injections can be made directly through the film!

DecapiCones restrain post-decapitation kicking and prevent personal contact with feces or urine.

A unique dispenser holds DecapiCones open and ready for use. Simply hold the DecapiCone in one hand and

introduce the animal with the other. Animals enter readily, heading for the breathing hole at the small end. Roll and squeeze the large end closed.

May be used repeatedly for injections and simply discarded when soiled. For decapitation, hold at the rear and insert the small end into the decapitator.

MODEL	DESCRIPTION
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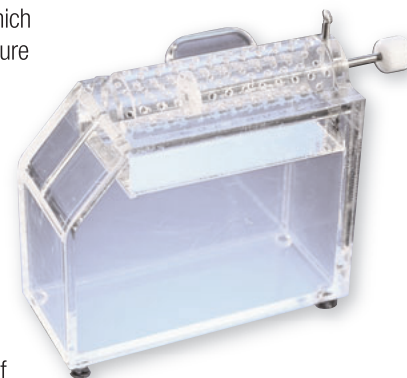
MDC-200	For Mice 200 Decapicones (2 dispensers contain 100 cones each)
DC-200	For Rats 200 Decapicones (4 dispensers contain 50 cones each)
DCL-120	For Large Rats (500-800g) 120 Decapicones (4 dispensers contain 30 cones each)

Rotating Tail Injector

Reduce time and increase productivity on mice tail injections and tattooing!

The only mouse restrainer in which the tail can be rotated. This feature provides for easy access to either vein in the tail for an i.v. injection. Animal chamber accommodates mice weighing up to 45g. RTI is ideal to adequately restrain an unanesthetized animal while having the tail vein straight in line with user's eyes for a successful injection. A pattern of airholes provide ventilation as well as a "toe-hold" for the mice.

The unit sits comfortably on a bench top or in a laminar flow hood and it can be U.V. sterilized for use with immunocompromised mice. The raised table top lets user rest their hands to administer the injection.



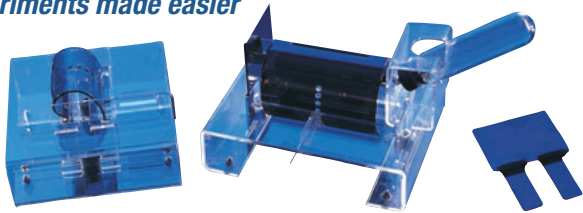
MODEL	DESCRIPTION
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RTI	Rotating Tail Injector (for mice up to 45g)
RTI-I	Standard Replacement Tube



Universal Restrainer

Experiments made easier



- **Adjustable:** Unique spiral grip makes single-size restrainers obsolete
- **Low stress:** Gentle, but secure. Rats can not turn or escape, natural posture maintained
- **Easy to use:** Complete experimental access
- **Stable and strong:** Wide base stands up to daily use, heavy construction
- **Easy to clean:** Opens fully, will not corrode, no blind ends. Plastic and stainless steel construction
- **Improved technique:** Save time and effort when handling laboratory rats. User has both hands free. Relax and avoid accidents, knowing animals are gently but firmly restrained

MODEL	DESCRIPTION
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Mouse Restrainer (for mice 20-60g)

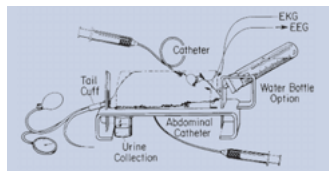
- | | |
|--------|---------------|
| 500M-S | Smoked Canvas |
| 500M-C | Clear Canvas |

Rat Restrainer (for rats up to 350g)

- | | |
|--------|---------------|
| 700R-S | Smoked Canvas |
| 700R-C | Clear Canvas |

Rat Restrainer with watering system

- | | |
|--------|---------------|
| 800R-S | Smoked Canvas |
| 800R-C | Clear Canvas |



Rat model also features unique spiral grip and optional watering system.

Tailveiner®

Tail vein injection made easier!

The Tailveiner is the first easy-to-use mouse and rat restrainer specifically designed for tail vein injections. Slotted tube permits the rat or mouse to be quickly pulled in by the tail. The animal is then restrained by a plug which slides easily to accommodate any size rat or mouse, but locks automatically when handle is released. After dosing, the handle is lifted and the plug is easily removed. The Tailveiner is the fastest restrainer yet for intravenous injections in small animals.



MODEL	DESCRIPTION
-------	-------------

- | | |
|------------|-------------------------|
| TV-150-STD | For Mice 1.25" ID Tube |
| TV-150-SM | For Mice 1.125" ID Tube |
| RTV-170 | For Rats up to 120g |
| RTV-180 | For Rats up to 350g |
| RTV-190 | For Rats up to 500g |

Dorsal Access Mouse Restrainer



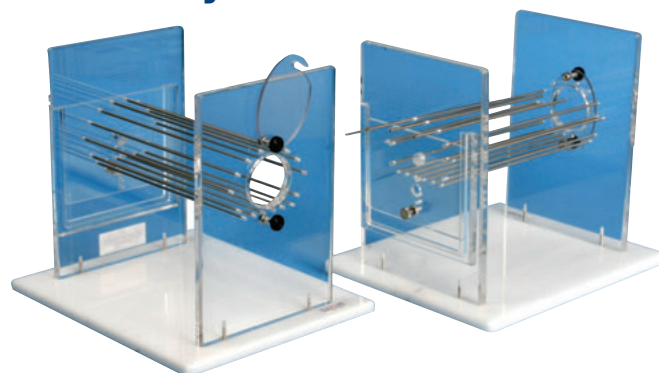
Accurate, safe and fast way to give injections. The dorsal skin of the mouse is easily accessed through the top circular opening enabling the user to perform subcutaneous injections without risk of being bitten and less likelihood of user sticking own finger.

- Easy entry: draw mouse tail first or lead head first through the wide entry funnel into the back of the tube and then position stop gate in choice of two slots
- With tail first entry, tail is exposed at rear of tube allowing easy access for tattooing and tail bleeds
- Overall dimensions: 7.4cm L x 10cm W x 6.7cm H (6.8"L x 3.9"W x 2.6"H)
- For mice 18-35g
- Made from crystal-clear, durable, and chemical resistant TPX®
- Unlike acrylic, can be repeatedly disinfected with EtOH and is autoclave-safe

MODEL	DESCRIPTION
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- | | |
|---------|--------------------------------|
| DA-MOUS | Dorsal Access Mouse Restrainer |
|---------|--------------------------------|

Bowman Style Rodent Restrainer



The Bowman Style Rodent Restrainer has been re-engineered and refined to accommodate larger sized animals up to 750 grams. The positions of the stainless steel rods around the rodent provide easy access for many types of research applications, especially obesity studies.

Rodent can quickly be inserted into restrainer by removing several stainless steel upper rods, or through an access port hole in rear upright. Access port hole features a polycarbonate locking door to prevent escape.

Front "guillotine" style door can be adjusted and locked by using any one of three adjustment positions. The door has a stainless steel "spring loaded" lock. Suction cup feet on white plastic base secure the device during use.

- Weight range from 250 up to 750 grams
- Maximum length of the rodent compartment is 9" (228mm)
- Eighteen (18) stainless steel rods are adjustable up to 3.5" $\varnothing$ (89 mm)
- Rear access port opening is 2" $\varnothing$ (50.8 mm). Polycarbonate locking door is attached by a 'Nylock' fastener to prevent future operational loss.
- Overall height is 11" (279 mm)
- Base size is 10" x 12" (254 mm x 305 mm)
- Basic unit is constructed of 0.5" (12.7 mm) jeweled acrylic

MODEL	DESCRIPTION
-------	-------------

- | | |
|---------|--------------------------------|
| POR-530 | Bowman Style Rodent Restrainer |
|---------|--------------------------------|

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Solid Brass Mouse Restrainer

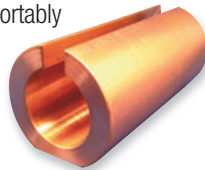
The Solid Brass Mouse Restrainer is designed to comfortably restrain a mouse for tail vein injections or sampling.

Specifications:

Size: 2" x 4"

Weight: 2 lbs

- Able to warm for animal comfort and vasodilatation of the tail
- Solid brass maintains heat for extended periods
- Weight provides a stable and secure placement on lab bench
- Can be sterilized via autoclave, ETO, liquid, VHP
- Long lasting



MODEL	DESCRIPTION
SAI-MBR	Solid Brass Mouse Restrainer

ECU™ Experimental Conditioning Unit

Conditions rats and mice for long experiments



ECU provides comfortable containment of experimental animals to facilitate repeated measurements of physiological and pharmacological parameters. *Not a restrainer:* animals are preconditioned (trained) to accept appropriate periods of confinement in the ECU. Blood pressure, clearance, and metabolism studies are better and easier using ECUs.

ECU consists of a molded plexiglass canopy hinged to a plexiglass base. Canopy has a tapered opaque plastic hood to protect the animal from visual disturbances. Multiple slots and an end plate allow adjustment of the canopy length for animal size and easy access to dorsal catheters and electrical leads.

The base has a large through drilled slot for accessing ventral catheters, feces and urine. Four comfortable slots are provided to support the feet.

The Braintree Scientific ECU is set up in position with the required equipment. The animal is placed in the ECU and the catheters and leads connected to the appropriate devices. Our ECU has been used for studies of anti-hypertensive drugs: development of hypertension as a function of age, renal and drug clearance, metabolism, and endocrinological studies.

ECU units are tailored for different sizes of rats and mice as a function of body weight.

For best results, animals should be conditioned to appropriate periods of confinement in the ECU. This is easily achieved by introducing animals to the ECU daily for increasing periods of time.

MODEL	DESCRIPTION
G-05	ECU less than 50g
G-1	ECU 50 to 120g
G-2	ECU 120 to 250g
G-3	ECU 250 to 350g
G-4	ECU 350 to 400g
G-5	ECU 400 to 800g

Economy Flat Bottomed Restrainers

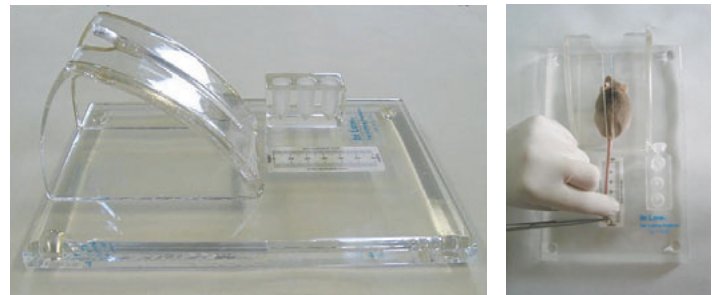
Individual semicylindrical plastic restrainers in small, medium and large. Each unit has an open slot on the bottom (for intra-peritoneal injections), a hole on the top (for the neck), and a slotted tail piece (for intravenous injections). Front slots provide ample ventilation.



MODEL	DESCRIPTION
FB-S	Small Mouse Restrainer (for mice 15 to 30g) 1.5" D x 4" (3.81cm D x 10.16cm)
FB-M	Medium Rat Restrainer (for rats 30 to 125g) 2" D x 5" (5.08cm D x 12.70cm)
FB-M/L	Medium/Large Rat Restrainer (for rats 125 to 250g) 2.5" D x 6" (6.35cm D x 15.24cm)
FB-L	Large Rat Restrainer (for rats 250 to 500g) 3.375" D x 8.5" (8.57cm D x 21.59cm)

Tail Snipping Platform

For isolating DNA from transgenic animals for genotyping



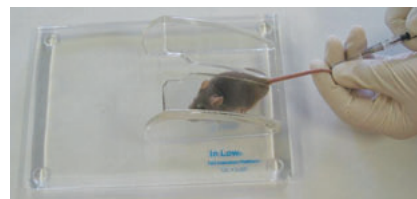
Simply pull mouse tail through the slot, measure and collect tip in the vial.

- **Micro Tube Holder:** Collect tail tip directly in the prelabeled tube preventing DNA cross contamination
- **Measuring Ruler (mm):** Accurately measure tail length for cutting. Enhances IACUC compliance
- **Cleaning Slot:** Feces and urine are easily washed out with stream of water (minimizes cross contamination)

MODEL	DESCRIPTION
IL-200	Tail Snipping Platform

Tail Vein Injection Platform

The quickest and easiest restraint for tail vein injections. Simply pull mouse tail through the slot and make injection!



- Non-grip surface
- Wide opening for easy access
- Open slot for easy cleaning feces and urine easily washed away

MODEL	DESCRIPTION
IL-300	Tail Vein Injection Platform



Restrainers

Illuminated Rodent Tail Vein Unit

Offers an "illuminated rodent tail vein" unit featuring "brite light" illumination system with rechargeable batteries and a recharger unit.

- ▶ Clear plastic tail insertion cone
- ▶ Formed white base housing batteries, on/off switch, and lights
- ▶ Base acts as battery charging unit
- ▶ Electrical plug for recharging batteries. (100 to 240 VAC capacity)

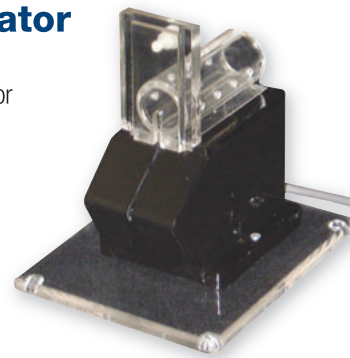


MODEL	DESCRIPTION
IRC-562	Illuminated Rodent Tail Vein Unit includes 2 rechargeable batteries

Mouse Tail Illuminator

The mouse tail illuminator efficiently illuminates and warms a mouse tail for easy injection or bleeding. Each unit comes with a restraining tube and illumination source. Additional tubes are available.

- ▶ Restraining tube slides off base for easy cleaning
- ▶ Illuminated slot for easy tail vein injection, etc.
- ▶ Sliding doors keep mouse gently restrained



MODEL	DESCRIPTION
MTI	Mouse Tail Illuminator
MTI-1	Standard Replacement Tube
MTI-2	Smaller Tube 1.125"
MTI-3	Rotating Tube



Feeding Needles and Equipment

Animal	Weight Range	Ball Diameter
Mice	25-150g	1.25mm
Rats	100-400g	2.25mm
Rats	350-500g	3.00mm
Other	over 450g	4.00mm

Reusable Feeding Needles



MODEL	GAUGE	LENGTH	BALL DIA.
N-001	24ga	1" Straight	1.25mm
N-002	22ga	1" Straight	1.25mm
N-003	20ga	3" Straight	2.25mm
N-004	18ga	3" Straight	2.25mm
N-005	20ga	3" Curved	2.25mm
N-006	18ga	3" Curved	2.25mm
N-007	16ga	3" Curved	3.00mm
N-008	18ga	1" Straight	2.25mm
N-009	16ga	4" Curved	3.00mm
N-010	20ga	1.5" Curved	2.25mm
N-020	22ga	1.5" Straight	1.25mm

*Items shipped by the dozen or 4 per pack.

Sterile Malleable Disposable Feeding Needles



These needles feature plastic luer hubs and silicone tips and can be easily formed to desired shape.

100 sterile needles per box.

MODEL	GAUGE	LENGTH
D-001	20G	1.5" Straight
D-002	18G	2" Straight
D-003	15G	3" Straight

Sterile Flexible Plastic (PTFE) Disposable Feeding Needles



Animal feeding needles (AFN) allow user to precisely dispense liquid to animal while minimizing the chances of esophogial piercing. Sterile, non-toxic, and non-pyrogenic, available in a variety of gauges and lengths.

100 sterile needles per box.

MODEL	GAUGE	LENGTH	BALL DIA.	QTY
DT-9928	18ga	1.5"	2mm	100
DT-9925	15ga	3.07"	2.8mm	100
DT-9920	20ga	1.5"	1.9mm	100

Additional sizes coming soon.

Flexible Plastic (PTFE) Disposable Feeding Needles with Bite Protectors



Flexible plastic (PTFE) tube is covered at hub end with 304 stainless steel tubing, protecting tubing from damage due to biting during use. Plastic (PTFE) tube is softer than other tubing types, very flexible and translucent for easy confirmation of reagent delivery. Plastic luer hubs and soft silicone tips, non-toxic and non-pyrogenic.

Packaged 5 needles per sterile peel pouch/20 pouches per box.

MODEL	GAUGE	LENGTH	BALL DIA.	QTY
BG-9928	18ga	1.5"	2mm	100
BG-9923	18ga	2"	2mm	100
BG-9924	18ga	3"	2mm	100
BG-9926	17ga	3.3"	2.4mm	100
BG-9925	15ga	3.1"	2.8mm	100
BG-9927	15ga	3.9"	2.8mm	100

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New! Mini Capsules

For laboratory mice, rats and guinea pigs



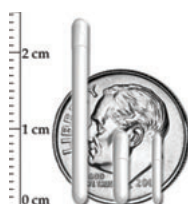
- Ideal for materials that are insoluble, form poor suspensions, are affected by excipients or are odorous and distasteful, e.g., sustained release beadlets, paint flakes, chromic oxide marker
- For lower GI drug delivery size 9 has been used in rats >200gm and Guinea Pigs; size M has been used in mice >30gm. Capsule holders are available for dip coating in enteric solutions
- Size 9 can be used for intra-colonic delivery via rectal insertion in rats >200-250gm
- Save time and money by eliminating validation of suspension/solution homogeneity
- Eliminate excipients absorption affects

PARAMETER	SIZE 9EL	SIZE 9	SIZE M
Capsule body capacity	0.08ml	0.025ml	0.004ml
Fill weight (materials with density 1g/ml)	80mg	25mg	4mg
External Diameter Maximum	2.70mm	2.70mm	1.27mm
Length when locked maximum	23.2mm	8.4mm	8.4mm
Surface area locked capsule in sq mm, for enteric coating.	not applicable	68 ± 3 sq mm	31 ± 3 sq mm
Weight empty (cap and body) average ¹	17mg	10mg	~2mg
Colors available	clear and opaque	clear and opaque	white

¹For a specific net fill weight tare the weight of each capsule body individually and then fill or use a pre-weighed amount of powder for each capsule.

Capsule Kit: Includes capsules, funnel, stand, tamper, dosing device and instructional video. Size 9 and 9el kits include 100 capsules. Size M kits include 50 capsules.

For easier dosing, we recommend the following aids:



Stainless Steel Dosing Syringe:

If dosing multiple animals, order additional syringes to allow them to dry between administrations. Syringes have a Luer lock design.

Stainless Steel Filling Funnel: Includes funnel, tamper, and stand. For precision filling on a balance.

Multiple Capsule Filler: Fill 40 capsules at a time to within ± 7-10% of average weight. Includes filler, tamper, and spreader.

Holder: Holds six capsules for enteric coating. Not for use with 9el as it will not pass through to the lower intestine.

MODEL	DESCRIPTION	SIZE	QTY
X-KIT-9el	Rat Capsule Kit	9el	100 capsules
X-KIT-9	Rat Capsule Kit	9	100 capsules
X-KIT-M	Mouse Capsule Kit	M	50 capsules
A-CT-9el	Capsules	9el	100/container
A-CT-9	Capsules	9	100/container
A-CT-M	Capsules	M	50/container
X-SYR-9el	Stainless Steel Dosing Syringe	9el	each
X-SYR-9	Stainless Steel Dosing Syringe	9	each
X-SYR-M	Stainless Steel Dosing Syringe	M	each
X-FUN-9el	Stainless Steel Filling Funnel	9el	each
X-FUN-9	Stainless Steel Filling Funnel	9	each
X-FUN-M	Stainless Steel Filling Funnel	M	each
X-FILL-9el	Multiple Capsule Filler	9el	each
X-FILL-9	Multiple Capsule Filler	9	each
X-HOLD-9	Holder	9	each
X-HOLD-M	Holder	M	each

Dyets Powder Feeder Jar Setup

- Prevents tipping or moving of Dyets feeding jar
- 100% stainless steel for easy cleaning and durability
- Versatile design allows for placement in any cage corner
- Set contains jar, lid, follower, and holder



MODEL	DESCRIPTION
DYETS	Dyets Powder Feeder Jar Setup

Rodent Feeder Bar

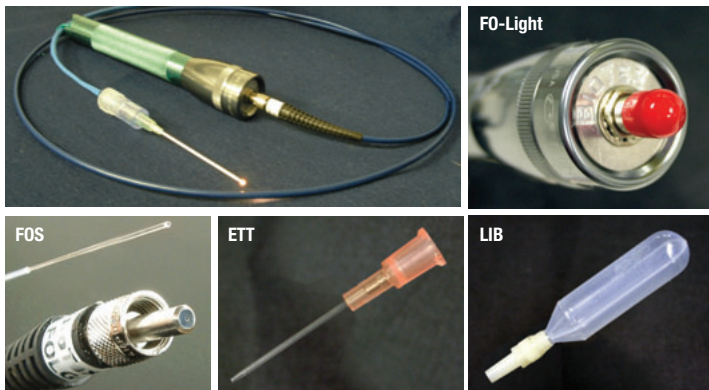


- Administer easily! No special skills required and completely eliminates need for dangerous gavage procedure
- Reduce time! Administer dose to 10-15 animals in 5-10 minutes
- Mix drugs directly to any available food matrix (peanut butter, yogurt, cheese)
- Confirm visually drug uptake by animals
- Work effortlessly with small or large groups of animals
- Animals adapt to a feeder bar fast and effortlessly
- Works for all rodents

MODEL	DESCRIPTION
FD-BAR	Rodent Feeder Bar



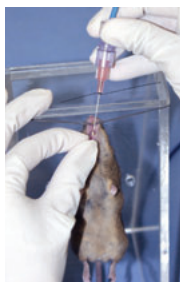
BioLITE Intubation Illumination System



The BioLITE system provides better anatomical visualization and combines several tools into one reducing the intubation time making the intubation process fast and easy.

The BioLITE System consists of a family of products: fiber optic illuminator (FO-Light), fiber optic stylets (FOS), endotracheal tubes (ETT), and lung inflation bulbs (LIB) packaged in a variety of kits to meet the individual needs for a variety of research interests.

Unlike other flashlight based fiber optic illuminators, the FO-Light houses an optical system that provides highly efficient light coupling into small core fiber optics resulting in intense illumination. Without the optical system, intensity of light output is insufficient to visualize anatomical features, which is why other flashlight based fiber optic illuminators are not compatible with small core fiber optics.



Using a small core fiber optic as both the stylet and guide wire, the FOS provides enough rigidity for applying mechanical force while remaining flexible enough to traverse convoluted paths. Light can also be delivered through the stylet/guide wire, enabling the user to illuminate the discrete places in the oropharynx directly where needed.

As accessories to the illuminator and stylets, endotracheal tubes and lung inflation bulbs have

specific qualities and provide feedback making them essential to any intubation procedure. The endotracheal tubes are urethane based IV catheters that are softer and more flexible than PTFE based catheters, minimizing the trauma associated with intubation. Lung inflation bulbs provide a means for verifying correct intubation through direct visualization of chest distention, which is more reliable than observing mirror fogging or abdominal breathing.

Also available as a Complete Kit (CO-Kit) that includes all the BioLITE System products for mouse and both sizes of rat. The BioLITE System is available in the following kits:

- ▶ Large Rat Kit (200+ grams, LR-Kit)
- ▶ Small Rat Kit (less than 200 grams, SR-Kit)
- ▶ Mouse Kit (10+ grams, MI-Kit)

Each kit contains all the necessary equipment to perform small rodent intubations fast, easy, and relatively painlessly.

- ▶ Fiber optic illuminator (FO-Light)
- ▶ Appropriate size fiber optic stylet (FOS-xxx)
- ▶ 5-pack of the appropriate size endotracheal tubes (ETT-xx-05)
- ▶ 3-pack of lung inflation bulbs (LIB-03)

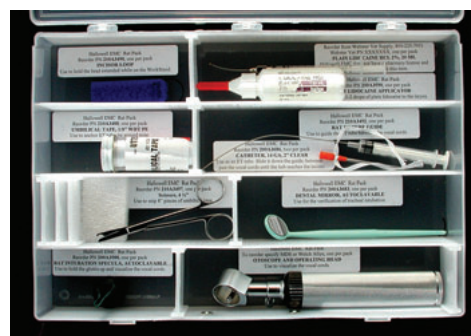
Though the BioLITE System was initially created for intubation, it remains a highly efficient small core fiber optic illumination system and can essentially be used in any application that requires intense illumination of a small space in a tortuous location.

For those interested in alternate applications or have no need for the intubation accessories, we offer a Stylets Kit (FO-Kit) that includes a mouse fiber optic stylet (FOS-400, 400µm core diameter), a small rat fiber optic stylet (FOS-600), a big rat fiber optic stylet (FOS-800), and a fiber optic illuminator (FO-Light).

MODEL	DESCRIPTION
MI-Kit	Mouse Kit for Mice 10+ grams (includes 1 FOS-400, 1 FO-Light, 1 LIB-03, and 1 ETT-20-05)
SR-Kit	Small Rat Kit for Rats 100-200 grams (includes 1 FOS-600, 1 FO-Light, 1 LIB-03, and 1 ETT-16-05)
LR-Kit	Large Rat Kit for Rats 200+ grams (includes 1 FOS-800, 1 FO-Light, 1 LIB-03, and 1 ETT-16-05)
FO-Kit	Stylets Kit (includes 1 FOS-400, 1 FOS-600, 1 FOS-800, and 1 FO-Light)
CO-Kit	Complete Kit (includes 1 FO-Kit, 1 LIB-03, 1 ETT-16-05, and 1 ETT-20-05)

Replacement parts available online at BraintreeSci.com

Intubation Packs



For use in conjunction with the Rodent WorkStand. The intubation packs, a rat pack and a mouse pack, hold everything needed to directly visualize and quickly intubate with a minimum amount of trauma. Each pack is

designed to hold all tools and supplies needed to perform quick, efficient and minimally traumatic orotracheal intubation of small rodents.

Intubation packs include specially designed and molded, autoclavable intubation speculum, lidocaine applicator, endotracheal tube guide wire, incisor loop and a brief video tutorial of how to perform intubations. Rat Pack also contains scissors, umbilical tape, and mirror for the verification of tracheal intubation. Mouse pack includes two sizes of Hallowell's mouse endotracheal tubes.

Packaged neatly and conveniently in a 13" x 8" x 2" polypropylene organizer box with each compartment labeled for contents and reordering information. Can be stored most anywhere and always ready for use.

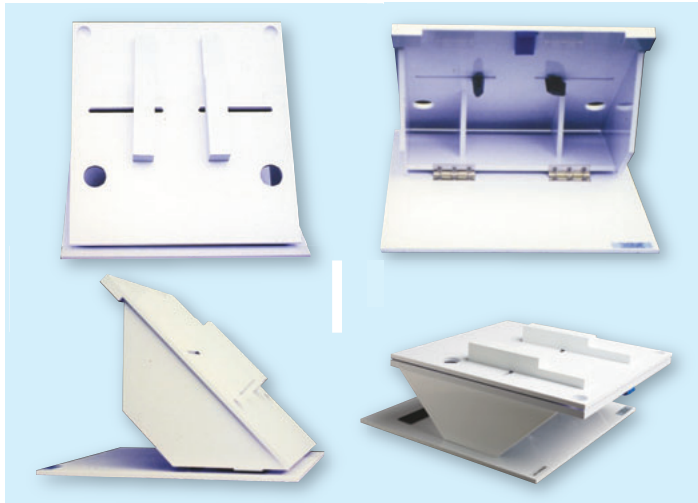
MODEL	DESCRIPTION
RW-A3746	Rat Intubation Pack
RW-A3747	Mouse Intubation Pack
RW-A3748	MDS Otoscope - not rechargeable. Uses standard, replaceable NICAD batteries.
RW-A3749	Welch Allyn NICAD Otoscope - rechargeable Includes charger
RW-A3754	Welch Allyn LI ION Otoscope lighter and brighter- rechargeable Includes charger

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Rodent Work Stand



Rodent Work Stand is designed to support rats, mice and similar small rodents in a stable and comfortable position for the technician during endotracheal intubation and intratracheal dose instillation and other similar procedures. 12" wide x 14" deep x 5.375" high when flat, tilted it is 9.5" high. (Flat: 30.48cm x 35.56cm x 13.65cm, tilted: 24.13cm high)

Heated work stand kit converts this work stand to a heated work stand.

MODEL	DESCRIPTION
RW-A3467	Rodent Work Stand
RW-HHP	Heated Pad Kit

BioLITE Stand

Simple durable stand is easy to clean, store, and is portable



Constructed from durable polycarbonate, this platform provides the perfect stage for intubating mice and rats of all sizes.

The animal is suspended from the incisor wire on the angled side of the stand. Three mounting positions are available to customize the placement of the animal on the stand in order to meet the user's needs. Two sets of posts are provided with each stand. Each post has three positions for the height adjustment to optimally accommodate user and animal.

Stand is constructed from a single piece of polycarbonate plastic with a seamless design. The top of the stand provides a hand rest for stabilization during intubation that is designed to support significant weight. Compact seamless design and its construction make this stand easy to clean. Will not crack with the use of harsh cleaning agents as with similar stands constructed from acrylic.

MODEL	DESCRIPTION
RIS-100	For Mice
RIS-200	For Rats

Irradiation



Rat and Mouse Pie Cages

Cages are easy to clean and to use



Circular cages hold up to 11 rodents for whole body irradiation. Notched removable lid can be dialed to any of the ventilated pie-shaped chambers. Also use for temporary transport or storage of animals for acute studies. The rat cages have tail slots for intravenous dosing.

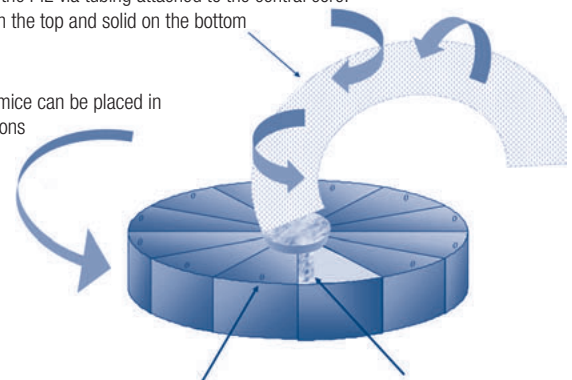
MODEL	DESCRIPTION
MPC-1	Mouse Pie Cage: Unit dimensions: 21.5cm dia, 7.5cm height; Individual chambers feature 5cm base and 9cm length
MPC-2	Mouse Pie Cage with filter top and filter
MPC-W	Mouse Pie Wedge, single slice with sliding cover
MP-FLT	Replacement Filter
RPC-1	Small Rat Pie Cage Unit dimensions: 41cm dia, 6.75cm height Individual chambers: 10cm (base), 18cm (length)
RPC-2	Large Rat Pie Cage Unit dimensions: 46cm dia, 8cm height Individual chambers: 11.5cm (base), 20cm (length)

Modified Pie Cage

to accept aerosol delivery

Aerosol enters the PIE via tubing attached to the central core. Core is open on the top and solid on the bottom

PIE rotates so mice can be placed in individual sections



Aerosol exits each PIE section through one 3mm hole in the center of the outer edge

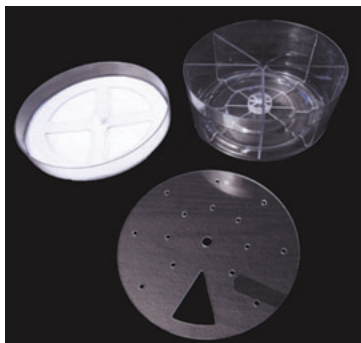
Aerosol is distributed to each PIE section via five 3mm holes

MODEL	DESCRIPTION
MPC-AERO	Mouse Aerosol Cage
RPC-1-AERO	Small Rat Aerosol Cage, 41cm dia, 6.75cm height
RPC-2-AERO	Large Rat Aerosol Cage, 46cm dia, 8cm height

Rat aerosol cages available, call for details and pricing



Rad Disk™ and Rad Disk Mini™ Polycarbonate Rodent Microisolation Irradiator Cages



Protection for Irradiated

Animals: Because Rad Disk™ and Rad Disk Mini™ are made entirely of polycarbonate plastic, it is autoclavable. The two cage sizes are designed to fit into radiation chambers 5" high and 9" diameter and larger. Used as instructed, Rad Disk™ and Rad Disk Mini™ prevent contamination of mice before,

during and after irradiation. They are also a versatile carrier to protect rodents while transporting them in and out of facilities.

Cage Divider System: Rad Disk and Rad Disk Mini include a polycarbonate removable divider system which divides cages into four to eight compartments for irradiation. Used without dividers, mice can also free range which allows greater uniformity of dose delivery during irradiation.

Imbedded Jump Guard™: Rad Disk and Rad Disk Mini include a polycarbonate piehole cutout cover that can be easily rotated over each divided chamber to insert rodents and prevent escape or jump to adjacent chambers.

Protection from Contamination: Rad Disk and Rad Disk Mini are autoclavable with lid in place. Within a changing hood, animals are transferred from their housing into sterile protective environment of Rad Disk and Rad Disk Mini, using standard microisolation techniques. Lid contains a 3-ply filter which can be used up to 6 months, or 12 autoclave cycles. Lid has aligned air holes through which potential airborne contaminants are trapped on exterior of filter. After transferring animals into Rad Disk and Rad Disk Mini, animals can be transported to the radiation source, even if traveling through a contaminated environment.

Sterile Transportation: After irradiation at location outside of the animal facility, Rad Disk and Rad Disk Mini containing animals are prepared for re-entry into animal facility by placing a strip of plastic tape over each aligned row of airholes, completely sealing lid and allowing for liquid sterilization of exterior of cage prior to facility re-entry (check with facility management for SOP which may vary from institution to institution). Once decontaminated, taped cage can be taken to the sterile or clean change station, and animals may then be transferred back to their original or new cages. Tape can be removed from lid after transporting cage to wash area for reprocessing. Any contaminants are trapped on outside of filter between airholes and lid, so leaving tape in place prevents exposure to facility environment.

Rad Disk and Rad Disk Mini are easy to clean, store, and sterilize for use.

MODEL	DESCRIPTION
IRD-P-M	Mouse Irradiator Cage with Divider (polycarbonate) 8.875" dia x 3.875"H
IRD-P-R	Rat Irradiator Cage with Divider (polycarbonate) 10.75" dia x 4"H
IRD-FLT-M	Mouse Irradiator Cage Replacement Filter
IRD-FLT-R	Rat Irradiator Cage Replacement Filter

Rad Disk Micro™



Rad Disk Micro 1™ designed to hold one mouse for irradiation or transfer purposes. Similar to Rad Disk™ and Rad Disk Mini™, it has triple filtration and filter screen protection, is autoclavable, and maintains sterile conditions within when utilized with standard microisolation transfer procedures. Rad Disk Micro 1™ stacks three units into specially modified Best Theratronics GS 1000 irradiator carriers (call for more details) or can be used in other irradiator or isolator applications.

Rad Disk Micro 3™ designed to hold 3 mice for irradiation or transfer purposes. Identical to the Rad Disk™ and the Rad Disk Mini™, it has triple filtration and filter screen protection, Jump Guard™, three dividers, is autoclavable, and maintains sterile conditions within when utilized with standard microisolation transfer procedures. Rad Disk Micro 3™ stacks up to four units into specially modified Best Theratronics GS 3000 irradiator carriers allowing for up to 12 subjects to be irradiated per time period (call for more details) or can be used in other irradiator or isolator applications.

MODEL	DESCRIPTION
IRD-P-M3	Holds three mice, 4.85" dia x 1.9"H
IRD-FLT-M3	Replacement filter

Mouse Irradiation Chamber

- ▶ 1/8" (3.2mm) clear acrylic
- ▶ Flip-top lid for easy loading and unloading
- ▶ Perforated top allows air to circulate throughout unit
- ▶ Top incorporates a slot for filter material to improve contamination control
- ▶ Non-skid feet prevent unit from slipping and sliding
- ▶ 6" Dia. x 2" H/15.24cm Dia. x 5.08cm H



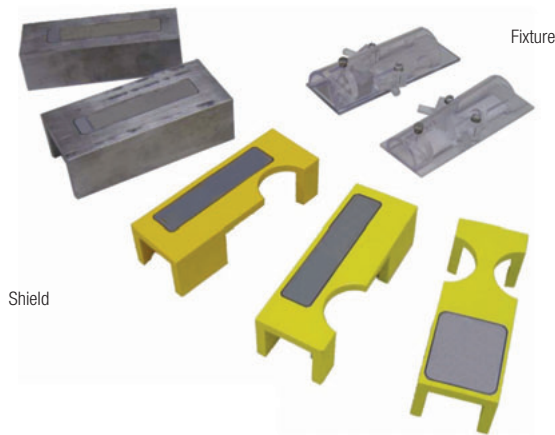
MODEL	DESCRIPTION
AK-MIC	Mouse Irradiation Chamber



Mouse Fixtures and Shields

Partial Body Irradiation Fixtures and Shields

Standard holding fixtures and corresponding lead shield for mice. Can be purchased separately or as a set.



Head Shield/Spine



Quad Head Exposure



Size 1 (<25G Mice) Fixture Body Diameter is 1" (25mm)

MODEL	CONFIGURATION
MHS1-LF-SET	Left Flank Fixture and Shield
MHS1-LF-F	Left Flank Fixture only
MHS1-LF-S	Left Flank Shield only
MHS1-RF-SET	Right Flank Fixture and Shield
MHS1-RF-F	Right Flank Fixture only
MHS1-RF-S	Right Flank Shield only
MHS1-DF-SET	Dual Flank Fixture and Shield
MHS1-DF-F	Dual Flank Fixture only
MHS1-DF-S	Dual Flank Shield only
MHS1-NF-SET	No Flank Fixture and Shield
MHS1-NF-F	No Flank Fixture only
MHS1-NF-S	No Flank Shield (blank) only
MHS1-H-SET	Head Shield and Fixture
MHS1-H-S	Head Shield only
MHS1-H-F	Fixture only – no flank
MHS1-B-S	Belly Shield only
MHS1-HQ-SET	Quad Base Plate, Shield, 4 Restrainers
MHS1-HQ-F	Fixture only – no flank (4 required)
MHS1-HQ-BPS	Quad Shield and Base Plate to hold 4 Restrainers, Head Exposure

Size 2 Fixture Body Diameter is 1.375" (35mm)

MODEL	CONFIGURATION
MHS2-LF-SET	Left Flank Fixture and Shield
MHS2-LF-F	Left Flank Fixture only
MHS2-LF-S	Left Flank Shield only
MHS2-RF-SET	Right Flank Fixture and Shield
MHS2-RF-F	Right Flank Fixture only
MHS2-RF-S	Right Flank Shield only
MHS2-DF-SET	Dual Flank Fixture and Shield
MHS2-DF-F	Dual Flank Fixture only
MHS2-DF-S	Dual Flank Shield only
MHS2-NF-SET	No Flank Fixture and Shield
MHS2-NF-F	No Flank Fixture only
MHS2-NF-S	No Flank Shield (blank) only
MHS2-B-S	Belly Shield only
MHS2-HE-SET	Head Shield/Spine Split Shield/Head Exposure and Bite Block Fixture
MHS2-HE-BBR	Head Exposure Restraint only with bite block
MHS2-HE-SPS	Head/Spine Exposure, split shield only

Intensive Care Units



Canister Humidifier



Modified Mouse Pie Cage sold separately

Allows approximately 2-3 hours of oxygen therapy and should be filled with distilled water.

Includes:

- ▶ Plastic collar
- ▶ White nipple connector with cap
- ▶ 7' crush proof O₂ tubing to canister
- ▶ Chrome DISS at top of canister
- ▶ 7' crush proof O₂ tubing from canister to O₂ source

MODEL	DESCRIPTION
HUM-CAN	Caniser Humidifier

Canister Nebulizer



Modified Mouse Pie Cage sold separately

Canister nebulizer with a dial on the top. Allows approximately 2 hours of therapy. Nebulization does not require oxygen (compressed air is sufficient). Use of distilled water is suggested rather than risk particulate from tap water.

Includes:

- ▶ Blue hose
- ▶ Canister nebulizer
- ▶ Chrome DISS fitting at top of canister
- ▶ 7' crush proof O₂ tubing from chrome fitting to air compressor and Schuco air compressor

MODEL	DESCRIPTION
NEB-CAN	Canister Nebulizer



Intensive Care Units

9cc Medication Nebulizer

Pour in whatever dosage of liquid medicine, top off with distilled water. Approximately 20-30 minute treatment. Nebulization does not require oxygen.

Includes:

- ▶ Hospital grade Schuco air compressor
- ▶ Blue top medication nebulizer
- ▶ Plastic collar
- ▶ 7' crush proof O₂ tubing to air compressor
- ▶ White elbow hose connector



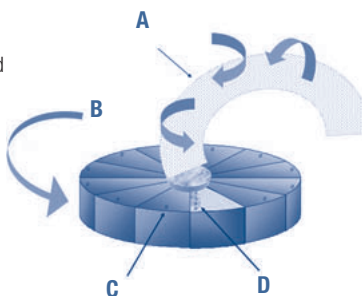
Modified Mouse Pie Cage sold separately

MODEL	DESCRIPTION
NEB-MED	9cc Medication Nebulizer

Modified Pie Cage

to accept aerosol delivery

- Aerosol enters the PIE via tubing attached to the central core. Core is open on the top and solid on the bottom
- PIE rotates so mice can be placed in individual sections
- Aerosol exits each PIE section through one 3mm hole in the center of the outer edge
- Aerosol is distributed to each PIE section via five 3mm holes



MODEL	DESCRIPTION
MPC-AERO	Mouse Aerosol Cage
RPC-1-AERO	Small Rat Aerosol Cage, 41cm dia, 6.75cm height
RPC-2-AERO	Large Rat Aerosol Cage, 46cm dia, 8cm height

Thermocare® Intensive Care Units

The Thermocare water-jacketed warmer base is made of heavy gauge fire retardant plastic. The UL and CSA approved heater maintains the temperature of the water accurately through resistance heating controlled thermostatically with a direct water-contact sensor. Creates a natural thermal convection current within the walls of the unit and the heat is radiated to ensure a constant, sustainable temperature within a safe therapeutic range of 75°-100°F wherever the patient lies. This combination of radiant heat and convection currents preclude the use of a pump, fan, or motor which may spark and ignite with the use of oxygen.

Uniform temperature is achieved without "hot spots" and "safe heat" is assured because the animal is surrounded by comforting warmth, just like a "hot water bottle", making Thermocare Warmers a critical part of recovery for reptiles, rodents and animals. Vents on the top of the heated or unheated covered units allow warm air to rise and escape with any carbon dioxide build up. It is the combination of therapeutic heat with respiratory therapy that creates a stand-alone ICU (Intensive Care Unit). For example, with the addition of a cover (domed or flat — which allows respiratory therapy) the Thermocare Warmer becomes an ICU.

To meet your specific needs, ThermoCare® offers a wide selection of intensive care units:

Intensive Care Unit with Dome Cover

ThermoCare's Intensive Care Units (ICUs) allow a full latitude of respiratory therapeutic procedures, including administering oxygen, humidity and nebulization in combination with heat. Units accommodate animals up to 20 pounds (small size) or up to 80 pounds (medium/large sizes). The optional perch facilitates treatment for birds.

Specifications:

Small: 26"L x 17"W x 15"H

Medium: 33"L x 27"W x 25"H

Large: 42"L x 27"W x 25"H

Dome covered units include:

- ▶ Water conditioner
- ▶ Water level gauge
- ▶ Spin/venting handport covers
- ▶ Humidiguide (temperature/humidity gauges).



MODEL	DESCRIPTION	SIZE
DW-1N	ICU with Dome Cover	Small
DW-2N	ICU with Dome Cover	Medium
DW-3N	ICU with Dome Cover	Large

Intensive Care Unit with Flat Cover

This Intensive Care Unit (ICU) has been named by researchers as the "rodent recovery cage," also great for small birds, reptiles, eggs, and newborns.

Specifications:

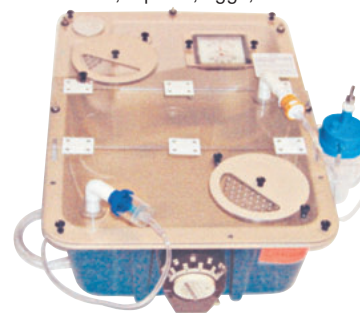
Small: 26"L x 17"W x 6.5"H

Medium: 33"L x 27"W x 12"H

Large: 42"L x 27"W x 12"H

Flat covered warmers include:

- ▶ Water conditioner
- ▶ Digital thermostat
- ▶ Water level gauge to monitor water level within the warmer
- ▶ Spin/venting handport covers
- ▶ Humidiguide (temperature/humidity gauges)
- ▶ Divider



MODEL	DESCRIPTION	SIZE
FW-1N	ICU with Flat Cover	Small
FW-2N	ICU with Flat Cover	Medium
FW-3N	ICU with Flat Cover	Large



BIOSEB

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Emergency preparedness with disposable cages

All Innovive cages are BPA-FREE



Both equipment failure and a natural disaster can be dealt with efficiently and safely using the Innovive disposable irradiated Innocage® Static rodent cages and pre-filled Aquavive® water bottles.

The Innovive disposable rodent caging disaster recovery and emergency planning solution allows user to:

- ▶ Maintain animals' change-out schedule with a supply of fresh irradiated static cages on schedule
- ▶ Provide a clean water supply to mice with pre-filled water bottles quickly and easily in any location
- ▶ Quickly evacuate IVC racks to a new lab location

Maximize storage space: Innovive disposable rodent cages and water pack densely; they arrive double-bagged, irradiated and boxed for easy storage and can be accessed as needed.

Static Disposable Cages



All Innovive static mouse cage lids fit the universal cage bottom, which provides 81" of floor space and 5" of headroom. All Innovive static mouse cage lids are delivered double-bagged and irradiated - 100 units per box. Innovive static rodent cages are designed for stand-alone use, no ventilated rack required.

Innocage® Static Mouse

Specifications:

Dimensions: 14.7"D x 9.2"W x 5.5"H

Uses: Universal

Cage size: 8.8 oz

Capacity: 1.9 oz food tray

- ▶ **Static Lid:** Innovive disposable static cage is designed specifically for static rodent housing for mice; it is also an excellent resource for your Emergency Preparedness Plan
- ▶ **Water:** Aquavive Mouse bottle (empty or pre-filled), autowatering, and water pouches
- ▶ **Food Tray:** Standard, stainless steel or all plastic

Disposable Cages for Rodent Transportation

The Innovive disposable transportation cage allows transportation of mice in the same cage that they are housed with a simple change of the lid, reducing animals' disturbance with a simple change of the lid.

Rodent Transportation Challenges

- ▶ Maintaining a low-stress and healthy environment for animals during long- and short-haul transportation
- ▶ Discrete and secure rodent caging
- ▶ Cost-effective transportation solution

Advantages of Innovive Transportation

- ▶ Healthy air for the trip of any length: large top filters provide excellent intracage airflow, which allows 5 mice to be housed in the Innocage up to 7 days
- ▶ Secure transport cage for mice: the cage's snap top secures animals during the trip
- ▶ No water or food tray needed: simply add a gel pouch and animals are ready to go
- ▶ Disposable caging is a cost-effective solution: remove the need to track, return and/or replace expensive traditional rodent cages

Innocage® Transport Mouse

Transport Lid - Whether moving animals a short or long distance, the Innocage Transport is a great solution. Simply replace an IVC lid with a transport lid to prepare the animals for relocation. Maintain a complete stock of transport cages for distributing animals from a breeding operation to primary housing areas.



Accessories



Mouse Water Bottle



Mouse Feeder



Card Holder

MODEL	DESCRIPTION	QTY
MS2	Innocage Static Mouse (top and bottom)	100
MS2-C8	Innocage Static Mouse, pre-bedded 0.125" Corn Cob (set)	100
MS2-AD	Innocage Static Mouse, pre-bedded Alpha Dri (set)	100
MS4	Innocage Transport Mouse (top and bottom)	100
MS4-C8	Innocage Transport Mouse, pre-bedded 0.125" Corn Cob (set)	100
MS4-AD	Innocage Transport Mouse, pre-bedded Alpha Dri (set)	100
M-BTM	Innocage Mouse, bottom only	100
M-BTM-C8	Innocage Mouse, bottom only, pre-bedded 0.125" Corn Cob	100
M-BTM-AD	Innocage Mouse, bottom only, pre-bedded Alpha Dri	100
M-FEED	Mouse Feeder, extended-use (standard)	100
M-FEED-SS	Mouse Feeder, extended-use (stainless steel)	100
M-FEED-P	Mouse Feeder, extended-use (plastic)	100
M-WB-300	Aquavive Mouse Water Bottle empty	100
CRD-HLD-U	Card Holder	100



Deltaphase® Isothermal Pad

Maintains animals or cultures at 37°C for hours.
Ideal for NMR!



Based on fundamental thermodynamics, completely safe even with flammable gases. Uses no electricity, wires, or control box. Reusable.

Why you need them

Normal biochemical functions are based on the temperature of 37°C. In conscious animals, core temperature is maintained. During anesthesia, body temperature falls. Normal chemistry is disturbed, surgical tolerance is reduced, and recovery is slow.

Studies of mammalian cell biology are conducted at 37°C. in expensive incubators in order to maintain normal function. However, the manipulation of cultures in a clean hood or on the bench top almost always leads to significant cooling. At the least, this results in the displacement of growth curves. At worst it can lead to significant cell mortality.

To maintain temperature during experimental procedures, many methods are used. Coverings help, but are impractical during most procedures and cannot replace heat already lost. Electrical heaters must be carefully monitored to prevent overheating or oscillation. Electrical devices often interfere with recording equipment. They are a shock hazard in the presence of urine, blood, or culture media, and the spark of a thermostat might ignite a flammable anesthetic or solvent.

The Deltaphase Isothermal Pad is a unique approach to temperature stabilization. It is a source of heat which cannot overheat once it enters its phase change. It is economical in that it needs no tubes, wires or electricity. It is also safer than other devices because it needs no thermostat or controller and does not generate electrical signals. But it can maintain a small animal or a culture bottle at near normal and constant temperature for several hours.

The concept of the Deltaphase Isothermal Pad is derived from the basic thermodynamic principle that a phase change occurs at constant temperature.

A unique chemical solution, contained within a durable pouch, is in solid form at room temperature. When heated, the solution becomes fluid and the pad is ready to use.

When an animal or container is placed in contact with an activated pad, heat is transferred and the solution slowly undergoes a phase change. During this change, over 30 calories are available per gram of solution and the temperature remains constant. The pad remains isothermal until all of the liquid phase has solidified.

Experimental studies have shown that the pad temperature of 39°C is ideal for maintaining animal or cultures at 37°C. If desired, one or more pads may be placed within a foam box to create a bench top or portable incubator.

Laboratory Evaluation

Rectal temperatures of two rats during six-hour experiment. (Animal weights 350g room temperature 24.5°C.) Animal on Deltaphase Isothermal Pad maintained near normal temperature for more than three hours.

The Deltaphase Isothermal Pad has been evaluated by researchers at a major medical center. Anesthetized rats (pentobarbital 45mg/kg) were placed on either an operating table or a Deltaphase Pad, and rectal temperature was monitored for six hours. The temperature of the rats on the conventional table fell rapidly and stabilized only near 30°C when pronounced shivering began. The rats on Deltaphase Isothermal Pad maintained body temperature near a constant 37°C for 4 hours. Each pad measures 8" x 8" x 0.75".

MODEL	DESCRIPTION
39 DP	3 Deltaphase Pads and 3 Insulators (board not included)

Need a custom size Deltaphase Pad? Fax details to 781-843-7932

Deltaphase® Operating Board



This compact operating board takes advantage of the Deltaphase principle to maintain animal body temperature during surgical or experimental procedures. An 8.5" square stainless steel operating surface lies in contact with an activated Deltaphase isothermal pad. The underside of the pad is insulated to provide a longer isothermal period. Molded wells are provided for sponges, instruments and anesthetic apparatus.

This board was designed by research scientists to be functional, durable, and easy to clean. Its low cost and safety make it appropriate for use in student laboratories. The unit is supplied with two Deltaphase pads, each pad measures 8" x 8" x 0.75".

MODEL	DESCRIPTION
39 OP	Deltaphase Operating Board, 2 Deltaphase Pads and 2 Insulators
39 DP	3 Deltaphase Pads and 3 Insulators only (board not included)

Instruments shown not included.



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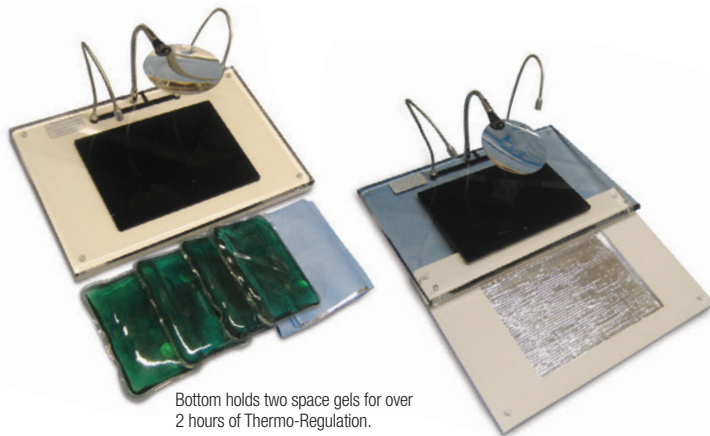
E-Mail: info@bioseb.com

Web: www.bioseb.com



Thermo Controlled Surgery Platform

Easily maintain animal body temperature during surgery!



Bottom holds two space gels for over 2 hours of Thermo-Regulation.

Space-age thermal reflector maximizes heat transfer.

- ▶ Two flexible LED lights provide direct illumination with no shadows and no heat
- ▶ Flex arm, non-obstructive rimless magnifying glass, 2.3 X main lens, 4.0 X inset lens. Allows continuous eye contact with object when moving into magnification area
- ▶ Limb restraints.
- ▶ 4 Space Gels for continuous heat or 2 Deltaphase® pads
- ▶ 2 Space Blankets to retain heat
- ▶ Thermo reflector and turbo heat sink to maximize heat transfer
- ▶ Non-skid feet for added stability
- ▶ Universal input power supply
- ▶ Size: 13.5"L x 9"W

MODEL	DESCRIPTION
ASS7T	Thermo Control Surgery Platform with Space Gels
SPGL-S	Space Gel Pad 4"x6"
SPGL-M	Space Gel Pad 5.5"x10"
SP-DR	Space Drape 3.5" x 10", (2 drapes per pack)
ASS7D	Thermo Control Surgery Platform with Deltaphase Pads
DPIP	Deltaphase Isothermal Pad, 6" x 7.5"

See microscope section for digital microscope attachments.

SpaceDrapes™

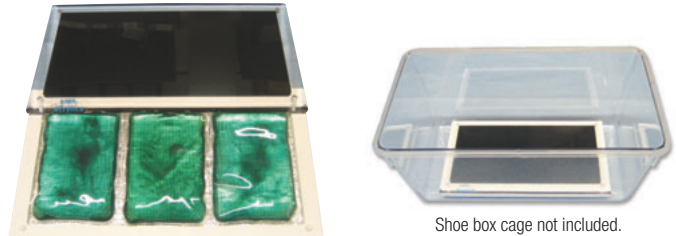
SpaceDrapes provide heat-retention capabilities while doubling as surgical drapes. They decrease recovery time and improve recovery prospect for animals that are under anesthesia by reducing radiant heat loss. They can be fenestrated and used as standard drapes. Available pre-packaged and pre-sterilized, or in rolls that can be sterilized by the user.



MODEL	DESCRIPTION
SP-TS	Space Drape 12" x 16", Flat (2 per pack)
SP-DR	Space Drape 3.5" x 10", (2 drapes per pack)
SP-MPS	4" x 5" Mouse Pouches (1 sterilized package of 5 pouches)
SP-RPS	9" x 12" Rat Pouches (1 sterilized package of 5 pouches)
SP-RNS	12" Roll (non-sterile, 100')

Thermo Controlled Recovery Pad

Animal recovery made simple and easy!



Shoe box cage not included.

Place animal on pad for recovery. Recovery pad will provide over 2 hours of Thermo-Regulation.

- ▶ Convenient size 13.5"L x 7.5"W
- ▶ 6 space gels for continuous heat
- ▶ 4 space blankets to retain heat
- ▶ Thermo reflector and turbo heat sink to maximize heat transfer
- ▶ Non-skid feet for added stability
- ▶ Fits into a standard 18"L x 9"W

Ultra-Safe Thermo Regulation:

- ▶ Will not over heat or burn animal
- ▶ No electricity used

MODEL	DESCRIPTION
TCRP	Thermo Control Recovery Pad (shoe box cage not included)

SpaceGels™



SpaceGels heating pads are formed by sealing a super-saturated liquid solution in a pouch similar to an IV bag. The pouch also contains a small metal activator disc. When the disc is flexed, the solution "freezes" and solidifies, giving off heat in the process. The

heating pads reach a maximum temperature of about 130°F. Because the heating process is physical, not chemical, the pouches can be reused several hundred times. To reset a SpaceGel heating pad, simply heat through steaming or boiling until all crystals have dissolved. Once cooled, it can be reactivated and used again.

SpaceGels have many uses. A SpaceGel can be placed between a cage containing a recovering animal and the table to provide heat during recovery. Small animals can be placed on the heating pads with some sort of barrier (towel, cloth, etc.) A SpaceGel can be wrapped and placed on a part of the animal to be warmed, or on the arteries if warming a large animal.

MODEL	DESCRIPTION
SPGL-S	Space Gel Pad 4" x 6"
SPGL-M	Space Gel Pad 5.5" x 10"



Water Heated Hard Pads

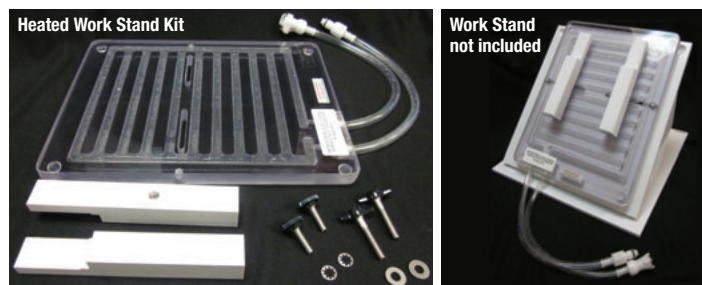
Connects to Gaymar, Hamilton and other pumps



Durable polycarbonate construction. Scalpel, needle, and towel clamp proof. Smooth surfaces are easy to clean helping to prevent nosocomial infection. Highly puncture resistant.

MODEL	DESCRIPTION
HHP-05	6"W x 8"D Heated Hard Pad
HHP-1	9"W x 12"D Heated Hard Pad
HHP-2	15"W x 24"D Heated Hard Pad
HHP-3	21"W x 24"D Heated Hard Pad
HHP-ADP-G	Adapter to connect to Gaymar Pump
HHP-ADP-A	Adapter to connect to Adroit Pump

Heated Work Stand Kit



Heated hard pad kit converts user's workstand into a heated workstand. Unit installs quite easily and can be ready for use in minutes with users existing or new Rodent Work Stand and circulating pump. Unit is also designed to be used as a stand-alone heated hard pad. Product is a great versatile addition. Work stand not included.

MODEL	DESCRIPTION
RW-HHP	Heated Rodent Work Stand Kit

Rodent Work Stand

Rodent Work Stand is designed to support rats, mice and similar small rodents in a stable and comfortable position.



MODEL	DESCRIPTION
RW-A3467	Rodent Work Stand

Wessels Induction/Warming Chamber



Provides continuous heat to animals being anaesthetized before surgery or recovering from surgery.

- ▶ Quick warm up time
- ▶ Precision temp control
- ▶ Easy cleaning
- ▶ 10 minute set-up time
 1. Connect chamber to VE-100 controller
 2. Select cage plate temperature 102°F (39°C)
 3. Confirm cage plate temp with IR thermometer
 4. Place animal in chamber and monitor

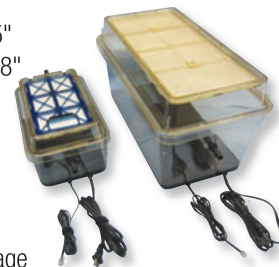
VE-100 Precision Temp Controller: Allows user to set a precise cage plate temperature based on current laboratory conditions (room temp, etc.).

Filter Top: Allows animal to fully recover in chamber while unattended. Includes membrane for sealing filter top and outlet port to exhaust gas when used as an induction chamber.

IR Thermometer: Quickly determine cage plate temperature before and during recovery.

Warming Chamber:

- ▶ Standard small shoe box cage, 7" x 11" x 5"
- ▶ Standard large shoe box cage, 10" x 19" x 8"
- ▶ Thermo probe imbedded in bottom of cage floor for accuracy
- ▶ Inlet port for gas anesthetic when used as an induction chamber
- ▶ Cage floor sealed from heating element
- ▶ Bedding or other material can be used in cage
- ▶ Quick pre-heating and continuous heating with 700 watt heating element
- ▶ Multiple chambers (up to 6) can be controlled by one VE-100 controller



MODEL	DESCRIPTION
WW-CS	Small Induction/Warming Chamber Kit Includes: 1 small chamber, 1 filter top, VE-100 controller, IR thermometer and operating instructions
WW-CL	Large Induction/Warming Chamber Kit Includes: 1 large chamber, 1 filter top, VE-100 controller, IR thermometer and operating instructions
WC-S1	Small Induction/Warming Chamber Includes: 1 small chamber, 1 filter top
WC-L2	Large Induction/Warming Chamber Includes: 1 large chamber, 1 filter top
WW-FWCS	Replacement Filter for Small Top (5/pk)
WW-FWCL	Replacement Filter for Large Top (5/pk)



T/Pump®

The T/Pump® system provides safe and effective core body warming and cooling therapy with precise temperature control. It helps prevent body heat loss and hypothermia during surgery and recovery. Cooling setting delivers 50°F (10°C) therapy.

- For warming therapy, two selections are available: low (100°F/38°C) or high (107°F/42°C)
- Three-layer safety system with dual temperature sensors, dual microprocessors and a mechanical thermostat to ensure patient safety
- Illuminated LED control panel, comfortable handle, built-in hose, cord storage and translucent water reservoir designed for ease of use
- Uses tap water (and ice cubes if cooling)



MODEL	DESCRIPTION
TP-700	Gaymar Heating/Cooling Water Pump
TP-D22C	Gaymar Multi-T Pad, 15" x 22" Single Patient, each
TP-R22G	Multi-T Pad, 15" x 22" Reusable, each
TP-D3E	Multi-T Pad, 3" x 23" Single Patient. 10/case
TP-D12E	Multi-T Pad, 13" x 18" Single Patient, 10/case

New! ThermaZone® Hot/Cold Therapy Pump

ThermaZone® thermal therapy pump provides hot or cold water circulation in a little as ten minutes. Achieves cold water temperatures of 55°F in less than two minutes and 37°F in 10 minutes without ice. Veterinary version comes with standard power supply.

- Broad temperature range - from 34°F to 125°F
- 12 volt power supply allow for portable applications in a car
- Closed system allows for hot or cold at the switch of a button
- Small footprint, small amount of water



MODEL	DESCRIPTION
IP003-07	ThermaZone Hot/Cold Therapy Pump

New! Reusable Neoprene Pad



For use with ThermaZone hot/cold therapy pump. Water circulating pad 6" x 9" with leak proof connectors.

MODEL	DESCRIPTION
IP003-22	Reusable Neoprene Pad

Heat Therapy Pump

The safest and most accurate localized heat therapy system available. Bright and easy-to-read display provides continuous real-time temperature readings. Digital controller uses proprietary software to manage users prescribed set-point temperature to within 1°F. Three temperature safety limits guard against possibility of overheating and Hi Limit Switches can be tested without taking unit apart!

Specifications

Set-point range: 75°F (Off) to 107°F

Set-point accuracy: 0.5°F

Flow rate: ≥15gph

Reservoir: 50 oz (1,500 ml)

Approvals: μL 2601, CSA C22.2
No. 601-1 51DF

- Mercury free!
- Uses tap water



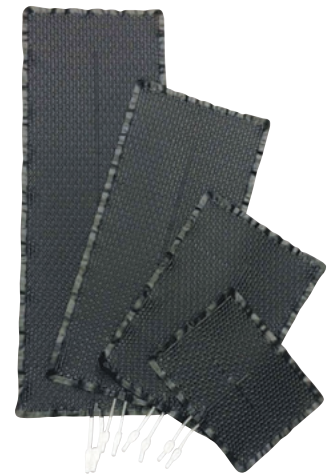
MODEL	DESCRIPTION	UNITS
HTP-1500	Heat Therapy Pump	—
AP-D22C	Single Patient Pad, 14" x 20"	20/case
AP-D26E	Single Patient Pad, 18" x 24"	20/case
AP-R22G	Reusable Pad, 16" x 20"	20/case

Accessories: rolling stand, bed bracket and temperature/flow rate tester available call for pricing.

New! Soft-Temp Reusable Veterinary Heating Pads

Soft-Temp reusable pads are the perfect solution for veterinary warming.

- Available in four sizes, pads fit table-tops, surgery tables and in kennel cages
- Soft-Temp pads work best with Adroit's HTP-1500 pump, but adapters are available for use with different pumps
- Pads may be used directly against the skin or covered with pillow cases or light-weight fabric for added protection against damage
- Heavy-duty pads can be patched if needed



MODEL	DESCRIPTION	SIZE
TP-AV-016	Small Soft-Temp Veterinary Heating Pads.	16" x 20"
TP-AV-029	Medium Soft-Temp Veterinary Heating Pads.	20" X 29"
TP-AV-044	Large Soft-Temp Veterinary Heating Pads.	20" X 44"
TP-AV-057	X-Large Soft-Temp Veterinary Heating Pads.	20" X 57"
TP-AV-Patch	Heating Pad Patch Kit	



TCAT-2 Temperature Controller



Our new TCAT-2 general purpose PID autotuning controller provides accurate temperature control in a variety of laboratory applications. Combined with a heat lamp or heating pad, the TCAT-2 may be used to maintain the body temperature of anesthetized animals during surgery or stereotaxic procedures. Small animal cages are easily warmed with a heat lamp. The TCAT-2 may also be used in cooling applications, such as to control independent perfusate cooling systems.

Realizing that laboratory applications are diverse, TCAT Controller is provided in several versions. The model specified depends upon whether a laboratory has a general or specific need for the controller.

MODEL	DESCRIPTION
TCAT-2AC	Controls AC only powered heating or cooling devices such as a heat lamp.
TCAT-2LV	Provides low voltage DC output for electrically sensitive applications where AC frequencies might interfere with other monitoring devices. Includes built in DC power.
TCAT-2DF	Includes both AC outlet for controlling primarily resistance loads such as heat lamps, AC powered warming blankets and a low-voltage, low noise, DC output for heating pads. Allows user to control a variety of different loads.

All TCAT-2 versions may be used with any of our extensive line of accurate Type T thermocouple probes, which act as the temperature feedback sensor. Most commonly used are the RET series of animal rectal probes, but the IT series of implantable flexible probes and MT series of needle probes may also be used depending upon the specific application. All instruments are designed to operate on a 110V or 230V AC supply.

Heat Lamp

Optional infrared heat lamp is table mounted with a standard "u" screw clamp that expands to fit tables up to 2.25" deep. An 18" adjustable swing arm provides easy adjustment of radiant heat to specimen. The lamp is supplied with a 250w (infrared) heat lamp bulb and a built in reflector. A chrome bulb guard is also provided and easily snaps onto the lamp housing after the bulb is installed. Fits standard 110v AC socket. Power: 10 watts.

MODEL	DESCRIPTION
HL-1	Heat Lamp

New! Warming Blanket



Flexible blankets for use with TCAT-2LV and TCAT-2DF controllers. Blankets use far infrared radiation to penetrate deep into the body.

- Small blanket (8" x 6") is suitable for mice and small rats
- Large blanket (14" x 14") is suitable for adult rats and guinea pigs

Specifications:

Power: 9.5 V @ 1.5 amps

Over Temperature Protection: 100 Ohm RTD

Lead Length: 3'

Material: Antibacterial washable surface



MODEL	DESCRIPTION
WB-1	Small Warming Blanket 8" x 6"
WB-2	Large Warming Blanket 14" x 14"

New! Heating Plate

Optional direct current heating plate for small rodents (mice and rats). Standard plates are black anodized aluminum.

- HP-1M measures 4.375"W x 8.5"L
- HP-4M measures 1.5"W x 4"L
- Both models have small feet attached giving them an elevation of .25" above the surface it sits on, such as a table or stereotaxic stage
- Easily cleaned with alcohol
- Provided with a feedback sensor to prevent overheating when used with TCAT-2 series of controllers
- Custom sizes are also available with longer lead times



MODEL	DESCRIPTION	DIMENSIONS
HP 1M	Heating Plate	4.375" W x 8.5" L
HP 4M	Heating Plate	1.5" W x 4" L



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Thermalert Monitoring Thermometer

- ▶ Large digital display - Reads to 0.1°C in clinical range 25-45°C
- ▶ High stability - no calibration necessary
- ▶ Safe, low voltage battery operation
- ▶ Long battery life - 1200 hours



This economical, easy to use thermometer is intended for continuous monitoring in the laboratory. The digital display reads to 0.1°C. For safety, the unit is battery operated. Batteries last for 1200 hours. A variety of fast reading microprobes and special animal probes are available for the TH-5. TH-5 can be supplied with analog output for lab applications where strip chart recording is needed.

Specifications:

Temperature range: 25 to 45°C

Resolution: 0.1°C

Instrument accuracy: 0.1°C ± 1 digit

Calibration: Conforms to National Bureau of Standards tables
Monograph 125

Readout: 0.5" liquid crystal

Batteries: 4 "C" cells

Battery life: 1200 hours continuous

Analog output: Available at extra cost. Approx. 10mV per °C

MODEL	DESCRIPTION
TH-5	Thermalert Monitoring Thermometer
TH-5A	Thermalert Monitoring Thermometer with analog output
TT-S-5	Thermalert Stand

MicroTherma 2T



The MicroTherma 2T is compact, easy to operate and reliable. The popular MicroTherma Series makes use of a unique line of high-precision type T thermocouples. The combined result provides the best accuracy available in handheld thermocouple measurements. Self-diagnostic recalibration takes place each time the meter is powered on.

Each time the user checks the calibration of MicroTherma against an external standard, finding will be within spec – no adjustments required.

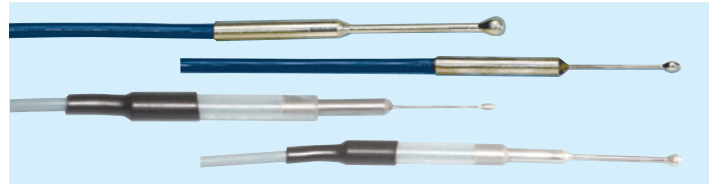
Each MicroTherma includes a traceable cal certificate with actual test data. Although the

precision thermocouples provide the best possible accuracy for interchangeable probes, the MicroTherma also allows a "system-cal" adjustment to offset any probe errors. Choose probes from our broad line of type T thermocouples.

- ▶ Accepts type T thermocouples
- ▶ ±0.2°C meter accuracy
- ▶ Self-calibrating circuitry
- ▶ Includes hold, max and min functions switchable °C or °F

MODEL	DESCRIPTION
TW2-193	Microtherma 2 Type "T" Thermometer
TW2-205	Protective PVC Boot
TW2-100	Small Attache Case, fits 1-2 probes

Animal Rectal Probes



For fast intermittent measurements. Smooth ball tip. Stainless steel shaft.

The isolated sensor can be used with monitoring equipment where electrical interference from other electrodes may be present. Reinforced strain relief for applications where probe is in more frequent use. Smooth ball tip, 1" long stainless steel shaft, 0.059" dia. 0.125" tip diameter, 5' lead length. Time constant 0.8 secs.

The RET-4 rectal probe is for very small animals (neonatal mice). Flexible polyurethane sheath with smooth rounded tip. 36" long (can be made longer). Outside diameter nominal 0.032" (max at tip 0.04"). Time constant 0.18 seconds. Max temp. 140°C. May be sterilized by Gas (ETO), glutaraldehyde solution or autoclave.

MODEL	DESCRIPTION
RET-2	Rectal Probe for Rats - 1" long, 0.59" dia., 0.125" tip dia.
RET-3	Rectal Probe for Mice - 0.75" long, 0.028" dia., 0.065" tip dia.
RET-4	Rectal Probe for Very Small Animals (Neonatal Mice)
RET-2-ISO	Rectal Probe for Rats with isolated sensor
RET-3-ISO	Rectal Probe for Mice and Neonatal Rats with isolated sensor
DSP-1	Disposable probe sheaths, 1,000/pkg

Flexible Implantable Probes - IT Series

IT series flexible microprobes can be used for tissue implantation, measurement of small volume liquid samples, rectal temperatures in baby mice, etc. Totally sheathed in chemical resistant Teflon. Quite rugged. Max temp. 150°C. Isolated. Type # designates needle gauge. (Or one gauge smaller in thin wall).

MODEL	DESCRIPTION
IT-14	0.050" diameter, constant 0.3 seconds, 3' lead length
IT-18	0.025" diameter, constant 0.1 seconds, 3' lead length
IT-21	0.016" diameter, constant 0.08 seconds, 1' lead length
IT-23	For ultra fast measurements and use on micro-size specimens. Sensor lead only 0.009" dia. Tissue implantable with 23ga needle (supplied). Rather fragile. Max. temp. 150°C. Time constant 0.005 secs. 3' lead. Teflon coated, isolated.
IT-1E	IT-18 with sensor bead exposed. Combines the ultra-fast response of IT-23 with the Teflon sheath strength of IT-18. Time constant 0.005 seconds, isolated.

Probe Wipes



Effective against a wide range of bacteria including "listeria" and "salmonella." Each wipe is pre-saturated with a broad spectrum anti-bacterial solution that is odorless and does not taint food. Single sachets are handy to carry and can be used by simply puncturing with your probe and running it back and forth. Mini tubs easily fit in a pocket or drawer. Large tubs are economical and can be mounted close to the point of usage.

MODEL	DESCRIPTION
836-200	Sachet, 1.25" x 1.25" wipe, carton of 100 wipes
836-022	Mini Tub, 2.75" x 5" wipe, single tub of 70 wipes
836-052	Large Tub, 5" x 5" wipe, single tub of 175 wipes



Infrared Thermometers

Pocket Infrared Thermometer

The absolute best value in palm-sized IR thermometers

Professional 6:1 optics give a 1" measurement spot at a 6" distance. Many pocket units offer only 1:1 which means the user has to be nearly touching the surface for an accurate reading.

Fits comfortably in palm with trigger button on side.

Simple mode button steps through Max, Min, C/F, and adjustable emissivity.

Includes:

- ▶ Infrared thermometer
- ▶ Neck lanyard
- ▶ 2 CR2032 batteries pre-installed
- ▶ User manual with certificate of conformance

Specifications:

Range: -67 to 482°F (-55 to 250°C)

Accuracy: $\pm 3.6^\circ\text{F}$ ($\pm 2^\circ\text{C}$) $\pm 2\%$ of reading or, whichever is greater

Resolution: 0.1°F or °C to 199.9, 1° above

Units: Switchable °F to °C

Response: 1 second

Distance/target: 6:1 (1" target diameter at 6" distance)

Emissivity: Default 0.95, adjustable 0.05 to 1 in 0.01 increments

Environmental range: 32 to 122°F (0 to 50°C)

Battery: 2x CR2032 included, 40 hours

Wavelength: 5-14μm

Dimensions: 0.9" x 2" x 4" (22.5mm x 50mm x 103mm)

Weight: 2.3 oz. (65g) including battery



MODEL	DESCRIPTION
IR-TW2	Pocket Infrared Thermometer

Close Focus Infrared Thermometer

- ▶ 0.7" (18mm) measurement distance
- ▶ 0.1" (2.5mm) spot size
- ▶ Dual laser
- ▶ Maximum temperature and hold features
- ▶ Easily switches from °C to °F
- ▶ Clock and chronograph
- ▶ Adjustable emissivity

Measure temperature precisely to 0.1" (2.5mm) with the CF-IR Close Focus Infrared Thermometer. Great for electronic components, laboratory measurements and research. Measures tiny areas with precision.

CF-IR multi-line display includes a real-time clock and measurement of ambient temperature for convenience. Other features include Min/Max, Hold, adjustable emissivity and built-in stop watch. Measure temperatures from - 67°F to 428°F at 0.7" (18mm) distance.



MODEL	DESCRIPTION
IR-CF	Close Focus Infrared Thermometer



Animal ID Systems

AIMS Neonate and General Rodent Tattoo Systems

Simple, quick and easy permanent animal identification



Convenient comprehensive kits for the humane tattoo identification of neonate or adult mice and rats. Each kit is provided with a comprehensive training guide and instruction DVD and all the tools needed to safely and efficiently

tattoo rodents. AIMS tattooing techniques are performed on unanesthetized animals and produce easy-to-read permanent ID's. AIMS tattoo pigments and supplies have been used in the industry for over 25 years and have been demonstrated to be **safe** and **non-toxic**.

Tattoo identification is cost effective with an average disposable cost of about 2¢ per neonate and 5¢ per adult rodent.

The NEO-9 Neonate Tattooing System

For tattooing P0-P15 neonate rodents of any color/strain.

Kit includes:

- ▶ Micro controller with HDUI power supply
- ▶ Foot pedal (on/off)
- ▶ Preset speeds
- ▶ Ultra light tattoo machine
- ▶ Non-skid machine platform with pigment holder
- ▶ Micro tattooing station (light, skin prep holder, 4x magnification)
- ▶ AIMS certified safe tattoo pigment
- ▶ AIMS skin prep (reduces fading)
- ▶ Standard/fine tip tattoo needles
- ▶ Finger guards
- ▶ Needle scanning scope
- ▶ Comprehensive DVD instructions
- ▶ Carrying case
- ▶ Detailed training guide provides step-by-step guidance and detailed illustrations on multiple ID schemes with large number ranges (>9,000).



Neonate tattoo identification is a practical and humane alternative to toe clipping (non-invasive). Toe tattoos allow user to use existing numbering system without removing the toe. Included supplies will tattoo 2000 neonates.

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 Web: www.bioseb.com



The AIMS ATS-3 General Rodent Tattoo System



Supplies and accessories to tattoo 3,000 weanling rodents and larger. The detailed training guide and instruction DVD provide step-by-step guidance with detailed illustrations. Use numbers, letters, lines, dots, and/or colors to permanently ID any color/strain mouse or rat.

Kit includes:

- ▶ AIMS standard tattoo machine with calibrated needle tube
- ▶ Micro controller with extended machine speed
- ▶ AIMS humane rapid mouse cup restraint system
- ▶ Tail tattoo reading light
- ▶ Certified safe/non toxic supplies and tattooing accessories
- ▶ 242B concentrated black pigment for C57 and B6 mice

Can be used for neonate rodent tattooing when purchased with the neonate accessory package.

Neonate accessory package includes:

- ▶ Micro Tattooing Platform (with light, 4x magnification, skin prep holder and DC power supply)
- ▶ Finger guards
- ▶ Neonate pigment
- ▶ Skin prep
- ▶ Fine tip needles
- ▶ Instruction book and DVD (Laboratory Animal Tattoo Identification Vol. 1, Neonate Mice and Rats)



Micro Tattooing Platform

Large Lab Animal Tattoo System

AIMS ATS-3L large lab animal tattoo system is a compact tattoo kit specifically developed for tattoo identification of large laboratory animals (hamsters, guinea pigs, ferrets, rabbits, NHP, swine – anything larger than a mouse/rat).

Kit includes:

- ▶ AIMS ultra-light tattoo machine
- ▶ Foot pedal on/off micro-controller
- ▶ AIMS small/large bore calibrated needle tube
- ▶ Select large animal tattoo needles
- ▶ Small equipment profile (quick setup/pickup)
- ▶ Reduced animal stress (quick tattooing)
- ▶ Easy cleaning and sterilization between animals
- ▶ Detailed operating and tattooing instructions

- ▶ Unlimited technical support from AIMS

Quiet Tattoo Machine version also available

Reduces noise level which leads to a calmer animal, 54% lighter, better balance, less hand fatigue.

MODEL	DESCRIPTION
NEO-9	Neonate Rodent Tattoo System Includes Lab Animal Tattoo Identification Vol. 1, Neonate Mice & Rats and DVD Instruction Video
NEO-9Q	Quiet version of the NEO-9
ATS-3	General Rodent Tattoo System Includes Lab Animal Tattoo Identification Vol. 2, Adult Mice & Rats and DVD Instruction Video
ATS-3Q	Quiet version of the ATS-3
ATS-3L	Large Lab Animal Tattoo System with instruction book
ATS-3LQ	Quiet version of the ATS-3L
NEO-AP	Neonate Accessory Package
NTS-01	Micro Tattooing Platform

Large Lab Animal Upgrade Package

LLA-AP Adds custom accessories and detailed instructions to easily tattoo identify large lab animals.

Battery Operation Upgrade Package

BPO-AP Adds remote operation capabilities to the ATS-3
Eliminates need for electrical outlet. Allows extended operation in any location. Ideal for field work animal identification!

Ear Punch



EP-T



EP-S

MODEL	DESCRIPTION
EP-S-901	1mm Punch (scissor style)
EP-S-902	2mm Punch (scissor style)
EP-T-900	Ear Punch 2mm (thumb style)
EP-T-M900	Miltex 2mm (thumb style)

Small Animal Ear Tag

Stainless steel applicator is designed to seal tags with minimal pressure, while providing a secure seal. Applicator can be used with or without the spring. Spring applies slight closing pressure to help hold tag in applicator prior to sealing.



MODEL	DESCRIPTION
EP-1005-S1	Stainless Steel Small Animal Ear Tag Applicator
EP-1005-1	Small Animal Ear Tags (1,000 pieces)

Custom numbering available. Visit BraitreeSci.com for details

Ear Puncher



A small and efficient ear puncher with spring action. Allows user to come closer when marking animal and is also equipped with a sloped edge for a clean cut. Autoclavable, but should be lubricated afterwards for long and trouble free usage. 11cm long with a 2mm diameter hole.

MODEL	DESCRIPTION	HOLE DIAMETER
EP-A7020	Ear Puncher	2mm



Ear Punch Pincher

These pinchers were developed after having several testimonies from customers with sore wrists and thumbs from using small ID punchers. The Ear Punch Pincher relieves stress on wrist during ID marking as it requires a very gentle pressure to cut a hole. Stainless steel puncher has a sloped edge which provides a cut rather than a punch, which minimizes animal discomfort. Autoclavable, but should be lubricated afterwards for long and trouble free usage.



MODEL	DESCRIPTION	HOLE DIAMETER
EP-SA7000	Ear Punch Pincher	2mm
EP-SA7075	Ear Punch Pincher	2.75mm

Aramis Micro-tattoo System

A revolutionary method for humane identification of laboratory animals



Micro-tattooing forceps with disposable hypodermic needle.

Individual identification is essential for maintenance of health/study records and management of colonies of laboratory

animals. This instrument is in compliance with regulatory agencies and research protocol requirements for care and use of laboratory animals.

Advantages:

- ▶ Permanent mark is easily readable on pigmented or albino animals
- ▶ Humane
- ▶ Rapid and easy to apply
- ▶ Almost infinite ID numbers
- ▶ Sterile and disposable hypodermic needles prevent spread of potentially infectious disease
- ▶ Inexpensive

Instructions:

- ▶ Choose the needle
- ▶ Fill ink tank
- ▶ Immobilization
- ▶ Squeeze instrument
- ▶ Identification with grid location

The needle is re-inked when it enters the ink tank on the other side.

Discomfort of animal is minimal and equivalent to a quick injection with a very fine needle.

Kit includes:

- ▶ 1 oz. of Ketchum green tattoo paste
- ▶ 1 aluminium planchette
- ▶ Plastic holding case
- ▶ 2 practice hypodermic needles

MODEL	DESCRIPTION
MTK-ARAMIS	Complete Microtattoo Kit
MTP-1	Green Tattoo Paste, 1 oz.
MTP-5	Green Tattoo Paste, 5 oz.

New! RFID Identification System

RFID provides laboratories worldwide with reliable, permanent and error-free identification for both large and small animals. SAI's in-depth knowledge of animal research and pharmaceutical development is combined with the technological expertise of UID to provide researchers with groundbreaking comprehensive tracking solutions.



Hand Held Reader

- ▶ Medium read range (5cm), Bluetooth and USB compatible
- ▶ Compatible with the UID 170 series of RFID chips
- ▶ Drivers available for implementation into laboratory information management systems such as Provantis, PDS, Xyblon and many others

MODEL	DESCRIPTION
URH-1	Hand Held Reader

Long Distance Reader

- ▶ Allows the researcher to read a RFID Chip up to 10cm away

MODEL	DESCRIPTION
URH-LD	Long Distance Reader

Transponder Programmer

- ▶ Allows programming of the UID 172 series of transponders
- ▶ Code up to 16 alpha-numeric characters of your choice prior to implantation

MODEL	DESCRIPTION
UID-PR1	Transponder Programmer

New! Implantable Animal RFID Chips

- ▶ Suitable for rats and larger animals, 2 x 12mm in cannula
- ▶ Suitable for mice, 1.4 x 12mm in cannula



MODEL	DESCRIPTION	QTY
UID-172L	Rat - RFID Chips, sterile	50
UID-172X	Rat - RFID Chips, sterile	10
UID-171L	Mouse - RFID Chips, sterile	50
UID-171X	Mouse - RFID Chips, sterile	10

Pistol Grip RFID Chip Injector

- ▶ Injector for use with the UID series of implantable RFID chips
- ▶ Reusable



MODEL	DESCRIPTION
UID-PI	Pistol Grip RFID Chip Injector



Core™ Compact Portable Balances



- ▶ Full range tare
- ▶ 9 weighing units
- ▶ Zero tracking
- ▶ Simple 4 button operation
- ▶ Backlit LCD display
- ▶ Stainless steel pan
- ▶ ShockProtect™ overload three-point protection
- ▶ Can be stacked for storage (120mm pan size only)
- ▶ Lock down mounting slot for Kensington™ type lock and cable
- ▶ Dual tare keys
- ▶ Lightweight and portable
- ▶ Modern low profile design
- ▶ Color coded, sealed keypad
- ▶ Low cost and simple to use
- ▶ External calibration
- ▶ Battery power (6 x AA Batteries)
- ▶ Auto sleep/power down function to save battery life
- ▶ AC Adapter

MODEL	CAPACITY	PLATFORM SIZE	READABILITY
CQT 202	200g	4.7 Ø/120mm Ø dia	0.01g
CQT 251	250g	4.7 Ø/120mm Ø dia	0.1g
CQT 601	600g	4.7 Ø/120mm Ø dia	0.1g
CQT 1501	1500g	4.7 Ø/120mm Ø dia	0.1g
CQT 2601	2600g	5.7 Ø/145mm Ø dia	0.1g
CQT 2000	2000g	5.7 Ø/145mm Ø dia	1g
CQT 5000	5000g	5.7 Ø/145mm Ø dia	1g

New! CB Compact Portable Scale

Ideally suited for a variety of uses and applications, small and easy to use. Bright green backlit LCD display shows clear results, with a simple to use keyboard and Grade 304 stainless steel removable top pan for easy cleaning. Weigh units: grams, ounces and pounds, selectable. Batteries included. Optional mains adaptor can be purchased.

- ▶ Portable with battery power
- ▶ Stainless steel pan
- ▶ g, oz and lb



MODEL	CAPACITY	PLATFORM SIZE	READABILITY
CB-501	500g	5.1" Ø/130mm Ø	0.1g
CB-1001	1000g	5.1" Ø/130mm Ø	0.1g
CB-3000	3000g	5.1" Ø/130mm Ø	1g

Specimen Box with cover



Specimen box holds rodents for weighing purposes.

Specifications:

Dimensions: 4"H x 9"W

Weight: 157g

MODEL	DESCRIPTION
SB-8053	Specimen Box with cover

M-Prove Precision Balances

Sartorius M-Prove series are ideal balances and scales for educational, laboratories and research applications.

- ▶ Rugged housing made of ABS plastic with maximum overload protection
- ▶ Protective flip-down and removable plastic cover for shipping protection and stackable storage
- ▶ Integrated external calibration weights on models with capacity of 710 grams and below, unique durable design for multiple applications
- ▶ Applications include: counting, percent weighing, totaling, display hold, specific gravity, mass unit conversion
- ▶ 14 mass unit conversions - grams, ounces, pounds, pounds:ounce, pennyweight, troy ounces, grains, Newton, carats, Taels HK/Taiwan/Singapore/China, user defined
- ▶ Parts counting with selectable reference sample (1-100)
- ▶ Includes AC adapter
- ▶ External "one button" calibration with 3 weight options
- ▶ Lock-down capability
- ▶ Large 1" white back-lit display
- ▶ Battery operable with 9V block battery
- ▶ External calibration weights are stored in the balance
- ▶ Optional RS232 and USB interface kit available



MODEL	DESCRIPTION	READ	REPRO (±)	PAN SIZE
AY511	M-Prove 510g	0.1g	0.1g	5.5" x 5"/140 x 128mm
AY711	M-Prove 710g	0.1g	0.1g	5.5" x 5"/140 x 128mm
AY1501	M-Prove 1500g	0.1g	0.1g	5.5" x 5"/140 x 128mm
AY3101	M-Prove 3100g	0.1g	0.1g	5.5" x 5"/140 x 128mm

Accessories

YDP06	Data Printer, basic
YADAP-RS	RS232 Adapter, with 6' cable
YADAP-USB	USB Adapter, with 6' cable
YSW05	Software Wedge, for DOS and Windows®, including 5' cable (fits RS232)





Osmotic Pumps

ALZET® Osmotic Pumps



ALZET pumps are miniature delivery systems designed to provide constant, accurate administration of test agents. These self-powered pumps offer a convenient and efficient method for long-term dosing of mice and rats. Pumps are sold empty, and are easily filled with your test agent via syringe. Self-powered pumps are then implanted either subcutaneously or intraperitoneally. Twelve pump models offer a range of release rates and durations to meet your specific research needs. Continuous delivery of up to 4 weeks is feasible with a single pump, and even longer durations can be achieved through serial implantation of pumps.

Pumps sold in multiples of 10. Each package comes complete with one filling tube, 10 flow moderators and detailed instructions.

MODEL	DESCRIPTION
AP-1003D	1µL/hr, 3 days, 100µL
AP-1004	0.11µL/hr, 28 days, 100µL
AP-1007D	0.5µL/hr, 7 days, 100µL
AP-1002	0.25µL/hr, 14 days, 100µL
AP-2001D	8µL/hr, 1 day, 200µL
AP-2001	1µL/hr, 7 days, 200µL
AP-2002	0.5µL/hr, 14 days, 200µL
AP-2004	0.25µL/hr, 28 days, 200µL
AP-2006	0.15µL/hr, 42 days, 200µL
AP-2ML1	10µL/hr, 7 days, 2ml
AP-2ML2	5µL/hr, 14 days, 2ml
AP-2ML4	2.5µL/hr, 28 days, 2ml

Filling Tubes

Filling Tubes supplied in multiples of 10.

MODEL	DESCRIPTION
A-FT100	Filling tube for 100 microliter pumps
A-FT200	Filling tube for 200 microliter pumps
A-FT2	Filling tube for 2 milliliter pumps

For pricing visit BraintreeSci.com

Brain Infusion Kits

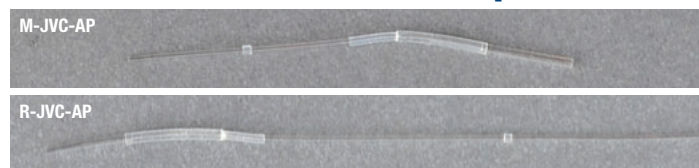
Many agents do not cross the blood-brain barrier sufficiently to evaluate their effects on the brain without administration directly into brain. Often local infusion directly into brain is only way to generate reliable data. For use with ALZET pumps for targeted delivery to the central nervous system.

- Infusion into cerebral ventricles exposes a wide variety of brain regions to infusate via cerebrospinal fluid which bathes brain
- Direct microperfusion of discrete brain structures results in localized distribution of infusate in target tissue

Includes materials for 10 brain infusions: 10 brain infusion cannulae, 10 vinyl catheter tubes, 40 depth-adjustment spacers, and instruction sheet.

MODEL	DESCRIPTION
BIF KIT1	28g, 3-5mm L
BIF KIT2	28g, 3-mm L, low profile, wide pedestal
BIF KIT3	30g, 1-3 mm L, low profile, wide pedestal

Intravenous Osmotic Pump Catheter



Braintree Scientific's Micro-Renathane® based catheter for the continuous, intravenous (via the jugular vein) administration of drug solutions delivered with the ALZET® Osmotic Pump. Catheter can be modified for infusion via other blood vessels (please inquire).

Supplied non-sterile

MODEL	DESCRIPTION
R-JVC-AP	Rat Intravenous Osmotic Pump Catheter
M-JVC-AP	Mouse Intravenous Osmotic Pump Catheter



Perfusion System

AutoMate In Vivo Manual Gravity Perfusion System

Take the guesswork out of your new animal fixation system

Providing an option for scientists who would rather do science than design a system and source parts. Let AutoMate take the guesswork out of your new animal fixation system. Steady gravity-fed delivery of buffer and fixative, results in complete perfusion. Easy to set up, use and clean. Complete system with everything down to the needles. Fits in standard hoods at a fraction of the cost of a peristaltic pump and more reliable. One or two users can perfuse two mice simultaneously with the Double In Vivo system.



- Four reservoirs and two stopcocks are mounted for two independent wash buffer and fixative deliveries on the same ringstands
- 2-way manual stopcock makes for easy one-handed operation to switch solutions
- Consistent results - steady gravity-fed delivery of buffer and fixative results in complete perfusion
- Easy to set up, use and clean - complete system with everything down to the needles. Fits in standard hoods
- Fraction of the cost of a peristaltic pump and more reliable

MODEL	DESCRIPTION
IV-140	InVivo Perfusion System 140ml - Mouse
IV-800	InVivo Perfusion System 800ml - Rat
IV-4140	Double InVivo Perfusion System 4x 140ml - Double Mouse

BIOSEB

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Web: www.bioseb.com



BS-900 Programmable Peristaltic Pump

Have a need to accurately fill multiple bottles, vials or other containers with a liquid? The learn and repeat mode of the BS-900 Peristaltic Pump makes even the smallest of businesses highly productive right from day one.

BS-900 is equipped to be used in many settings from small business to large factory floor. Pump can be integrated into existing production lines or simply stand alone.

BS-900 comes fully programmable and can be operated manually or with a PC through a RS-232 communication port at no extra cost.

Flow rates vary from a minimum of 0.5ml/hr to a maximum of 1250ml/min. The pump's specialty is its small scale production dispensing. It will fill numerous bottles, vials, etc. with fluids of all types.

Equipped for mass production dispensing at a price affordable for small business, this pump is a great deal no matter your purchasing power.

Easy-to-use keypad interface, space saving chassis: Foot print size of only 7.75" x 7" - won't take up unnecessary space on laboratory or production bench.



The YB2 Peri Head is included with the pump. This is a 2 roller 3/16" ID tubing kit. Maximum dispense rate is 775mL/min. Kit includes blue 2 roller head, 4 ft. of tubing, 1.75" nylon clamp ties and a vial of lubricant.

- ▶ Dispense and withdrawal pumping
- ▶ Dispense and withdrawal volumes separately accumulated
- ▶ Programmable dispense volumes
- ▶ Non-volatile memory of all operating parameters and pumping program
- ▶ Programmable phases allow complex pumping applications and interaction with external devices. RS-232 bi-directional control
- ▶ Built-in pump network driver. Pump network supports up to 100 pumps and other devices
- ▶ Two modes of RS-232 control: Basic and Safe. Safe mode provides communication error detection, loss of communication detection, and automatic transmitting of alarm conditions
- ▶ TTL I/O with software filtered control inputs to eliminate glitches and ringing on control inputs. Configurable TTL operational trigger
- ▶ Power Failure Mode: Restarts pumping program after a power interruption
- ▶ Audible alarm

MODEL	DESCRIPTION
BS-900	Programmable Peristaltic Pump
BS-900-YG4	1/16" Replacement Head for low volume, higher precision dispensing. Maximum dispense rate is 75 mL/min.

Syringe Pumps



BS-8000 and BS-9000 Programmable Syringe Pumps

Built for Automation

- ▶ Stand-alone or from a computer
- ▶ Infusion and withdrawal. Set a single pumping rate, set a dispensing volume, or program up to 41 pumping phases that change pumping rates, set dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer
- ▶ Create expandable and reconfigurable multi-syringe systems by attaching pumps to each other



UL Listed
CE APPROVED

General Features:

- ▶ Infuses and withdraws
- ▶ Accepts small syringes or large syringes, up to 60cc
- ▶ Dispense continuously at a fixed pumping rate as low as 6µL/hr or as high as 1200ml/hr
- ▶ Change pumping rate and direction while pumping
- ▶ Selectable rate units: µL/hr, µL/mn, ml/hr, ml/mn
- ▶ Dispense a specified volume
- ▶ Dispense according to a pumping program to:
 - ▶ Pre-program dispense volumes. Each volume can be different
 - ▶ Automatically change pumping rates or pumping direction
 - ▶ Ramp up or down the pumping rate
 - ▶ Timed delays between dispensers
 - ▶ Automatically pause program and wait for user to continue the dispense
 - ▶ Synchronize dispenses with other equipment or pumps to change pumping rates in reaction to a sensor or signals from other pumps
 - ▶ Send logic signals to other equipment. Change pumping rates in reaction to a sensor
 - ▶ Program audible alarm to beep at any time to alert operator
 - ▶ Enter pumping program from keypad or download from a computer
- ▶ Operates stand-alone, from RS-232 computer port or TTL logic interface
- ▶ Total volume pumped separately accumulated for infusion and withdrawal

Programming Features:

- ▶ 41 programmable phases
- ▶ Set event interrupts from external signals to cause automatic jumps to another part of the program
- ▶ Conditional jumps based on external inputs

Nested Loops:

- ▶ Repeat a section of the program continuously or a set number of times

Program Editing Functions:

- ▶ Insert and delete program phases
- ▶ Simplifies program development and updating
- ▶ Allows quick removal or addition of program phases
- ▶ Enter programs from keypad or computer
- ▶ Download or upload pumping programs from or to a computer. Store dispensing programs in a file, then download to one or more pumps. Specify in file to send a different pumping program of each pump in pump network
- ▶ Automatically change pumping rates
- ▶ Insert timed delays between dispenses

Multi-syringe pump has all programming features of single syringe pump with either 6 or 8 syringes.

MODEL	DESCRIPTION
BS-8000	Holds 1 Syringe up to 60cc
BS-9000-2	Holds 2 Syringes up to 60cc
BS-9000-6	Holds 6 Syringes up to 50cc
BS-9000-8	Holds 8 Syringes up to 10cc
BS-9000-12	Holds 12 Syringes up to 3/5cc



BS-300 "Just Infusion"™ Syringe Pump

Just the features that you want, and none that you don't want to pay for

- ▶ Holds small or big syringes up to 60ml
- ▶ Pump continuously until user stops pump
- ▶ Infusion rate can be changed while pumping
- ▶ Remembers previous settings on power up
- ▶ Power failure mode allows pump to continue pumping after a reset
- ▶ Syringe purge mode
- ▶ Displays total volume dispensed in ml or μL units
- ▶ Maximum pumping rate of 1500ml/hr with a 60ml syringe
- ▶ Precise reproducible flow rates
- ▶ Selectable infusion rate units: ml/hr, $\mu\text{L/hr}$, ml/min, $\mu\text{L/min}$
- ▶ **"Infuses only!"**



MODEL	DESCRIPTION
BS-300	"Just Infusion" Syringe Pump™

High/Low Speed Precision Microliter Syringe Pump

- ▶ Uses high quality Hamilton Microliter™ glass syringes to ensure precise, accurate delivery
- ▶ Supports three syringe sizes: 10 μL , 100 μL , and 500 μL
- ▶ Wide range of injection rates are possible
- ▶ Unprecedented injection speeds are possible. For example, using a 500 μL syringe, an injection volume of 100 μL can be delivered in under 100 ms!
- ▶ Able to inject the entire syringe volume during a single injection
- ▶ USB operation facilitates use; no extra controllers are required



The classic high speed Microliter Syringe Pump designed to meet the need in laboratories for rapid infusion of addictive compounds, especially nicotine.

Typical Maximum Injection Speeds

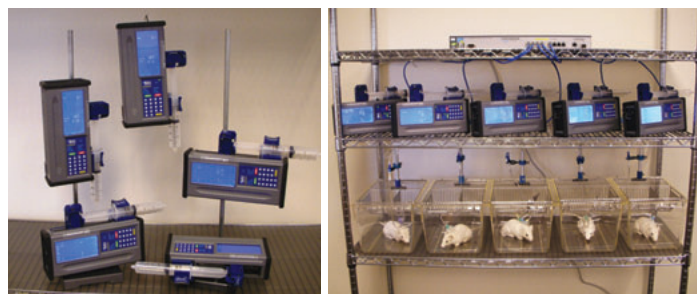
SYRINGE SIZE (μL)	MAX RATE AT 10% SYRINGE CAPACITY ($\mu\text{L/SEC}$)	MAX RATE AT FULL SYRINGE CAPACITY ($\mu\text{L/SEC}$)
10 μL	19 (inj. volume 1 μL)	32 (inj. volume 10 μL)
100 μL	190 (inj. volume 10 μL)	20 (inj. volume 100 μL)
500 μL	850 (inj. volume 50 μL)	1320 (inj. volume 500 μL)

Maximum and minimum injection rates are based on a saline infusion. Performance may vary depending upon viscosity of fluid. Injection rates shown represent the maximum rates achievable when either 10% of syringe capacity is injected or when full syringe capacity is injected.

MODEL	DESCRIPTION
BSP-104A	High/Low Speed Precision Microliter Syringe Pump

3D Programmable Pump

SAI model 3D™ infusion pump is the first state-of-the-art syringe driver built specifically for large-scale GLP Toxicology studies. Multiple communication options, wireless and/or Ethernet, provide unparalleled versatility for end user when coupled with the Axios™ infusion management software system. SAI 3D™ provides the most versatile animal room power delivery configuration available. Power 1-48 pumps with one AC cord. Small footprint and multiple mounting position features are designed specifically for space-challenged animal rooms. SAI 3D™ has all the features present in modern medical purpose pumps but will never be discontinued or altered due to irrelevant software changes required in human use pumps.



Unique Features:

- ▶ Small foot print
- ▶ Up to 48 pumps powered by a single AC cord
- ▶ Multiple mounting positions
- ▶ Power over Ethernet; one cord for both power and Ethernet
- ▶ Ethernet and/or wireless communication
- ▶ Syringe recognition
- ▶ Modern medical pump features; no threat of discontinuation due to "medical" requirements
- ▶ Repair and calibration kits available for complete "in-house" support

Unique Benefits:

- ▶ More pumps per room
- ▶ Less cords per room
- ▶ Multiple mounting options
- ▶ Communication flexibility
- ▶ Reduces maintenance and repair down time
- ▶ Designed by toxicologists for toxicologists

Specifications:

Accuracy: +/- 3%

Flow Rates: 0.01 to 438 ml/hr

Power: 110 or 220V, internal battery back-up, battery capacity 24 hours

Compatible Syringes: B-D, Terumo, Monoject

Alarms/Alerts: Low volume, syringe empty, occlusion, low battery, incorrect syringe, dose due, pump idle, syringe mounted improperly, multiple failsafe system alerts

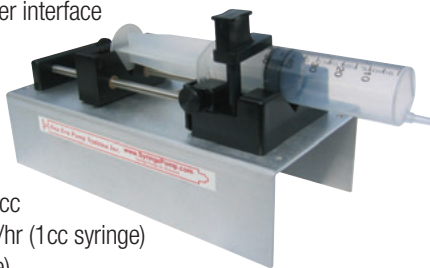
MODEL	DESCRIPTION
SAI-3D	3D Programmable Pump



BS-500 OEM Application Syringe Pump

Specifically built for automation, this OEM pump operates from a computer

- ▶ Does not have a built-in user interface
- ▶ Chassis mountable:
9.5"L x 4.25"W x 4.125"H
(23.5 x 10.8 x 10.5cm)
- ▶ Operates from a 12V DC power source
- ▶ Holds one syringe up to 60cc
- ▶ Infusion rates from 0.73 μ L/hr (1cc syringe) to 2100ml/hr (60cc syringe)
- ▶ Includes all advanced functions and programming features of BS-8000 family
- ▶ Download free pump terminal emulator
- ▶ Custom modifications to the mechanics and firmware are available
- ▶ Computer controllable: networkable up to 100 pumps



Stand-alone operation: pre-program the pump with a dispensing program, then operate the pump from an attached foot switch, button, or I/O controller. Add the OEM Starter Kit to run as a fully functional, stand-alone pump. Open chassis design easily mounts into your system.

Features include infuse and withdraw, holds syringes 60 cc and below. Set a single pumping rate and/or dispensing volume. Program up to 41 pumping phases that change pumping rates, set dispensing volumes, insert pauses, control and respond to external signals, sound the buzzer. Network, control, and monitor up to 100 pumps from one computer. Dispensing accuracy of $\pm 1\%$. Motor stall detection available in the BS-501 model. Typically used in high pressure applications where there is a risk of exceeding the maximum force specified.

OEM Starter Kit

Allows user to interactively communicate with the pump from a computer.

Foot Switch

Allows user to start, stop, or trigger the next phase on syringe pump. Attach to a BS-500 to allow stand-alone operation. Utilizes TTL logic port on syringe pump.

Higher flow rates available.



MODEL	DESCRIPTION
BS-500	OEM Syringe Pump
BS-501	OEM Syringe Pump with Stahl Detection Includes an optical encoder that will detect and stop the motor during a Stahl
OEM-Starter	OEM Starter Kit Includes power supply, pump-to-PC network cable and user manual
ADPT-2	Foot Switch

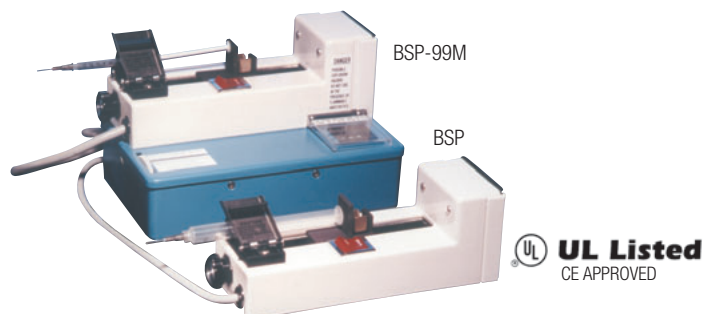
Programmable Microfluidics Syringe Pump

- ▶ Smoothest microfluidic syringe pump on the market. Holds 1 syringe up to 60ml
- ▶ Advance per step: 4.252232 nanometers
- ▶ Infusion rates from 0.008nl/hr (0.5ml syringe) to 2545 μ L/min (140ml syringe)
- ▶ Available in double syringe (BS-8004X) version
- ▶ Easy-to-use keypad interface
- ▶ Space saving chassis: foot print size of only 5.75" x 8.75" won't take up unnecessary space on laboratory or production bench
- ▶ Includes all advanced functions and programming features of BS-8000 family
- ▶ Includes X upgrade smooth linear/gradient increasing and decreasing pumping feature



MODEL	DESCRIPTION
BS-8002X	Single Syringe Pump
BS-8004X	Dual Syringe Pump

Model BSP-99M Multi-Speed



Multi-speed pumps infuse for times ranging from 20 minutes to 2 weeks!

Model BSP-99M syringe pump has 99 speeds and is designed for use with readily available glass and plastic syringes (up to 50ml).

- ▶ Built in flow chart
- ▶ 99 equally spaced infusion speeds
- ▶ Calibrated sheet providing flow rates for the major brand syringes
- ▶ Automatic shut-off
- ▶ Sound alarm to signal an empty syringe

MODEL	DESCRIPTION
BSP-99M	(0.145 to 140ml/hr)

Special order interchangeable motors to achieve different rates.

Micro-Syringe Adapter

Micro-Syringe Adapter is designed to be used in BSP syringe pumps when using syringes of 5ml or smaller. It is possible to insert two micro-syringes into the adapter.

Note: Rates specified obtained with a 50ml syringe

MODEL	DESCRIPTION
BSP-ADPT	Micro-Syringe Adapter



Syringe Pumps

Model BSP Single-Speed

Single speed pumps provide from 40 minutes to 3 days of continuous infusion with flow rate dependent on syringe size.

Model BSP single speed syringe pump is specifically designed to infuse fluids at an exact and reproducible flow rate from either glass or plastic syringes. Model BSP syringe pumps are equipped with:

- ▶ Automatic shut-off switch (disconnects power at end of syringe)
- ▶ Indicator on light

A calibration index is provided for infusion rates with different size syringes.

MODEL	DESCRIPTION
BSP-1	0.01ml/min; duration = 3 days +
BSP-2	0.12ml/min; duration = 6.9 hrs. +
BSP-3	1.21ml/min; duration = 41 minutes +
BSP-4	0.04ml/min; duration = 20 hrs. +
BSP-5	6ml/min; duration = 8 minutes +
BSP-6	36.2ml/min; duration = 1 minutes +

Syringe Heater



Heating device for syringes that require temperature-controlled dispensing. Heats syringe to over 100°C.

Temperature sensor in heating pad. Digitally set heater setpoint, setpoint is retained in memory. Controller will heat syringe and hold set temperature using an on/off or PID control algorithm.

Multiple syringe heater pads can be attached to the control unit.

Pump sold separately.

MODEL	DESCRIPTION
BS-SYRH	Syringe Heater Kit includes Control Unit, power cable and Primary Syringe Heater pad
BS-SYRH2	Syringe Heating Pad2 Kit for attaching a second heating pad to syringe heater kit. Temperature sensed in primary heating pad only
BS-SYRH3	Syringe Heating Pad3+ for adding third, up to sixteen, heating pads. Temperature sensed in primary heating pad only



Anesthesia and Euthanasia

Small Animal Anesthesia Systems that evolve with your needs

Safe, easy-to-use anesthesia systems for small animals

E-Z Anesthesia customizes systems to integrate seamlessly with your existing equipment. These systems can be customized to satisfy your current needs while providing the flexibility to expand and meet future requirements.

An innovative solution that offers the ultimate in user-friendly, simple operation with a level of precise automation that minimizes operator error. Each system incorporates a breathing valve that controls gas flow to the nosecone and protects both animals and technicians from overexposure to gas. Switching from working with mice to rats is as easy as changing a nosecone.

The E-Z system is expandable to accommodate up to four breathers. The system is adaptable to a wide range of procedures from Stereotaxic, MRI, X-Ray, PET, simply by interchanging a breather.



Single Animal System



Single Animal System is designed as an economical alternative when a simple, entry-level system is sufficient.

Accommodates animals ranging in size from neonate mice to rabbits. Designed for treatment of one animal at a time. Y-splitter valve directs anesthetic output to either induction chamber or breathing circuit. Oxygen flush purges induction chamber before removing animal. Carry handle facilitates safe, easy transport of unit

System includes:

- ▶ EZ-108SA Single animal vaporizer unit
- ▶ EZ-103A Microflex mouse/rat non-rebreathing device plus 2 plastic surgery beds
- ▶ EZ-178 mouse/rat Sure-Seal induction chamber
- ▶ EZ-258 charcoal filters (8)
- ▶ EZ-320 oxygen regulator for 'H' tanks
- ▶ Mouse/rat nosecones, nosecone plugs, charcoal filter stand, and all connecting tubes

MODEL	DESCRIPTION
EZ-SA800	Single Animal System

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E-Mail: info@bioseb.com
Web: www.bioseb.com



Classic Small Animal System



Classic Starter System

Includes core EZ Anesthesia components without heating system. Heating components may be added to the system as needed.

Featuring the Microflex Breather

Low profile breather is suitable for work under microscopes and other applications where a smaller breather is required. Also available in plastic for MRI use.

System includes:

- ▶ EZ-150C Classic vaporizer unit
- ▶ EZ-103A Microflex mouse/rat non-rebreathing device plus 2 plastic surgery beds
- ▶ EZ-178 Mouse/Rat sure-seal induction chamber
- ▶ EZ-258 charcoal filters (8)
- ▶ O₂ regulator - specify which oxygen regulator is required: EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/rat nosecones, nosecone plugs, charcoal filter stand, and all connecting tubes

Classic Small Animal System with heat includes everything above plus:

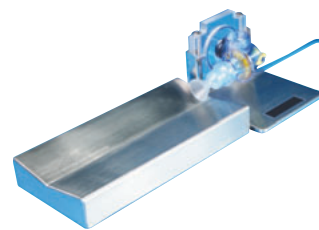
- ▶ EZ-200 Water heating circulation pump
- ▶ EZ-211 Mouse/rat thin-line stainless steel heated surgical waterbed (10"L x 3.5"W x 1"H) in place of plastic beds
- ▶ EZ-163 Induction chamber warmer

MODEL	DESCRIPTION
EZ-7000	Small Animal Anesthesia System no heat
EZ-7200	Small Animal Anesthesia System with heat

Versaflex Small Animal System

Featuring the Versaflex Breather

Versaflex breather offers the flexibility to treat a wide range of animals - neonates up to 5 kilogram rabbits. Breather is supplied with three nosecone sizes - customized for mice, rats, rabbits and guinea pigs. Tight fitting nosecones eliminate gas leakage and protect personnel from gas exposure. Includes heating elements for maintaining animal temperature during procedures.



System includes:

- ▶ EZ-150C Classic vaporizer unit
- ▶ EZ-104 Versaflex non-rebreathing unit
- ▶ EZ-178 Mouse/Rat Sure-Seal induction chamber
- ▶ EZ-212 Mouse/Rat stainless steel heated surgical waterbed (10"L x 6"W x 1.5"H)
- ▶ EZ-163 Induction chamber warmer
- ▶ EZ-200 Water heating circulation pump
- ▶ EZ-258 Charcoal filters (8)
- ▶ O₂ Regulator - specify which Oxygen Regulator is required: EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/rat and rabbit/guinea pig nosecones, nosecone plugs, charcoal filter stand, and all connecting tubes

MODEL	DESCRIPTION
EZ-7150	Versaflex Small Animal Anesthesia System

Microflex Small Animal System

Featuring the Microflex Breather



This low profile breather is suitable for work under microscopes and other applications where a smaller breather is required. Also available in composite plastic for MRI use. Breather is supplied with two nosecone sizes - customized for mice, rats and other animals weighing up

to 500 grams. Tight fitting nosecones eliminate gas leakage and protect personnel from gas exposure. Includes heating elements for maintaining animal temperature during procedures.

System includes:

- ▶ EZ-150C Classic vaporizer unit
- ▶ EZ-103 Microflex mouse/rat non-rebreathing unit
- ▶ EZ-178 Mouse/Rat sure-seal induction chamber
- ▶ EZ-211 Mouse/Rat thin-line stainless steel heated surgical waterbed (10"L x 3.5"W x 1"H)
- ▶ EZ-163 Induction chamber warmer
- ▶ EZ-200 Water heating circulation pump
- ▶ EZ-258 Charcoal filters (8)
- ▶ O₂ Regulator - specify which Oxygen Regulator is required: EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/rat nosecones, nosecone plugs, charcoal filter stand, and all connecting tubes

MODEL	DESCRIPTION
EZ-7200	Microflex Small Animal System



Multi-Animal System

Featuring the Multi-Animal Breather for use with x-ray, MRI and PET imaging equipment

Breather incorporates five ports that can accommodate five mice or three rats simultaneously from a single gas line. Custom breathers can also be made to integrate with existing equipment. Breather is supplied with five mouse nosecones and three rat nosecones. Tight fitting nosecones eliminate gas leakage and protect personnel from gas exposure.



System includes:

- ▶ EZ-150C Classic vaporizer unit
- ▶ EZ-109 Multi-animal non-rebreathing unit
- ▶ EZ-178 Mouse/rat sure-seal induction chamber
- ▶ EZ-258 Charcoal filters (8)
- ▶ O₂ Regulator - specify which oxygen regulator is required:
EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/rat nosecones, nosecone plugs, charcoal filter stand, and all connecting tubes

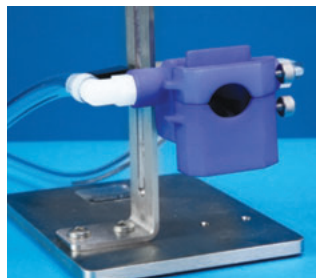
Multi-Animal System with heat includes everything above plus:

- ▶ EZ-163 Induction chamber warmer
- ▶ EZ-200 Water heating circulation pump

MODEL	DESCRIPTION
EZ-7109	Multi-Animal Anesthesia System no heat
EZ-7350	Multi-Animal Anesthesia System with heat

Stereotaxic Small Animal System

Featuring the Rat Stereotaxic Breather



Breather is specifically designed for use with rats. Integrates easily with standard stereotaxic equipment.

Incorporates adjustable nose bridge, lower jaw support and ear bars. Includes heating elements for maintaining animal temperature during procedures.

System includes:

- ▶ EZ-150C Classic vaporizer unit
- ▶ EZ-107 Rat stereotaxic non-rebreathing unit
- ▶ EZ-178 Mouse/Rat Sure-Seal induction chamber
- ▶ EZ-211 Mouse/Rat Thin-Line stainless steel heated surgical waterbed (10"L x 3.5"W x 1"H)
- ▶ EZ-163 Induction chamber warmer
- ▶ EZ-200 Water heating circulation pump
- ▶ EZ-258 Charcoal filters (8)
- ▶ O₂ Regulator - specify which Oxygen Regulator is required:
EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/Rat nosecones, nosecone plugs, charcoal filter stand and all connecting tubes

MODEL	DESCRIPTION
EZ-7400	Stereotaxic Small Animal System

EZ-AF9000 Auto Flow System



Precise, consistent, preset flow rate from each outlet, no variables. E-Z Auto Flow System offers highly efficient, precise gas flow that is easy to use.

- ▶ Fixed flow rates are set specifically for mice and rats
- ▶ Each output is individually controlled with simple on/off switch
- ▶ Five outputs supply anesthesia to the induction chamber and up to four breathers
- ▶ Preset flow rates eliminate need for flowmeters and manual adjustments
- ▶ Protocols are easily followed without calculations
- ▶ Flow rate is not impacted by the accessories connected
- ▶ Precise, low flow gas saves money and protects personnel
- ▶ Pushbutton oxygen flush purges induction chamber before removing animals

System includes:

- ▶ EZ-190F Auto-flow vaporizer unit
- ▶ EZ-103A Microflex mouse/rat non-rebreathing device plus 2 plastic surgery beds
- ▶ EZ-178 Mouse/Rat sure-seal induction chamber
- ▶ EZ-258 Charcoal filters (8)
- ▶ O₂ Regulator - specify which oxygen regulator is required:
EZ-320 industrial CGA540, EZ-330 medical yoke fitting
- ▶ Mouse/Rat nosecones, Nosecone plugs, charcoal filter stand, and all connecting tubes.

MODEL	DESCRIPTION
EZ-AF9000	Auto Flow System

Anesthesia WorkStation



Compact (9" W x 9" D x 15" H), convenient system for use on animals under 7 kg (15 lb). In clinical trials the AWS is being used for long term anesthetic procedures on 150-400gm rodents. AWS has been shown to be effective with induction, stabilization, and maintenance of patients for neurophysiological testing using inhalant anesthetics for daily

8- to 12-hour procedures. Using the AWS, rats under isoflurane anesthesia have been subject to extended electrophysiological recordings of cortical responses. Throughout these procedures AWS has been shown to facilitate administration of anesthetics, holding the subject in a very smooth, controllable anesthetic plane, as well as providing precise respiratory control.

Hallowell EMC Anesthesia WorkStation is easy to use as *both* a basic respirator (irrespective of anesthetic regime) and delivery source for inhalant anesthetics. It incorporates a time-cycled volume ventilator with an adjustable pressure safety limit. The only additional component necessary for immediate utilization is a vaporizer for the agent of your choice.

Frees user from the restraints of the operating room to work on bench top when appropriate.

MODEL	DESCRIPTION
AWS	Anesthesia Workstation

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E-Mail: info@bioseb.com

Web: www.bioseb.com



ReFresh™ Anesthetic Waste Gas Canister

Save time and money

Refresh Canisters last twice as long, capture twice the amount of Isoflurane with less waste and increased safety. With a decrease in canister changeovers there is potential for cost savings up to 40%.



MODEL	DESCRIPTION
EZ-258	ReFresh™ Gas Canister - case of 8

F/AIR Canister



A sensible answer to anesthesia gas problems in the operating room, the F/AIR anesthesia gas filter was specifically designed to remove waste anesthesia gases from the operating room environment. Economical to use, with an average useful life of 12 to 15 hours, F/AIR is easily adaptable to anesthesia machines. F/AIR can remove no less than 50 grams of pure halogenated anesthetic gases and can then be conveniently discarded.

MODEL	DESCRIPTION
F-AIR	F/Air Canister
F-AIR-CS	F/Air Canister - case of 8
F-AIR-KIT	F/Air Kit - Includes holder, scavenger tube and one canister

Vertical Canister Holder



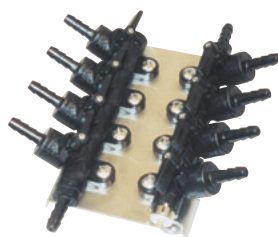
Vertical canister holder ensures proper canister position. A canister on its side will allow waste gases to travel across the top, limiting its effectiveness, while a canister on a table will block waste gases from exiting. Vertical canister holder accepts any canister 3" dia. or smaller. Model FC-A is included and connects standard 1/4" tubing to the canister.

The vertical holder is for passive systems only and can be tabletop or wall mountable

MODEL	DESCRIPTION
CHU-FC	Vertical canister holder, wall mountable (FC-A included)
CHU-1	Vertical canister holder, wall mountable (FC-A not included)
FC-A	90 Degree Adapter

Manifold

Manifold supports multiple procedures while utilizing only one vaporizer. While offering individual shut-offs, manifold provides intake of new gas to designated locations while opposite side provides output for used gases to a scavenger unit.



MODEL	DESCRIPTION
MAN-2	2 Station Manifold
MAN-3	3 Station Manifold
MAN-4	4 Station Manifold

Coaxial Breathing Apparatus

Anesthetic gas enters the side port and flows to front of nose cone to be inspired by patient. Upon exhalation positive pressure lifts a precision ball valve for 1-way scavenging. A rubber balloon is attached at the opposite end acting as a diaphragm.



MODEL	DESCRIPTION
COAX	Coaxial Breathing Apparatus

New! Rodent Anesthesia Face Mask Kit



- Fits mice and rats of all sizes, anatomically correct fit
- Zero leakage or dead space
- Gas flow range of 200 up to 1000cc/min
- Easy to customize
- Versatile for a wide variety of applications
- Quick change between masks
- Access eyes and head of the rodent while sealing nose and mouth
- Reinforced stress points for increased durability
- Mask provides stability of animal for examinations and surgery
- Can be easily incorporated in existing examination procedures
- Waste-line connects to gravity or vacuum filters
- Swiveling ports for greater flexibility in positions
- Adaptable to stereotaxic systems
- Pre-heat air with heating pad

Kit includes:

- Two 6' tubing
- Two 1/4" adapters
- Two 3/8" adapters

MODEL	DESCRIPTION	UNITS
XENO-CO-KIT	Complete Rodent Face Mask Kit includes small, medium, large and extra large face masks	
XENO-MI-KIT	Mouse Face Mask Kit includes small and medium face masks	
XENO-LR-KIT	Rat Face Mask Kit includes large and extra large face masks. . . .	

Individual Face Mask Kit

XENO-S	Small Face Mask Kit mask fits a less than 2 month old mouse Weight: 1.5g to 15g Mask measures: 8mm aperture x 25mm overall length
XENO-M	Medium Face Mask Kit mask fits 2 months and older mouse or a small rat Weight: Mouse - 15g to 26g, Rat - 3g to 20g Mask measures: 10mm aperture x 30mm overall length
XENO-L	Large Face Mask Kit Weight: Mouse - 26g and greater, Rat - 20g to 250g Mask measures: 13mm aperture x 35mm overall length
XENO-XL	Extra Large Face Mask Kit Weight: Rat - 250g to 750g Mask measures: 18mm aperture x 42mm overall length



Single Animal Vaporizer Unit



An economical choice for single animal treatment.

MODEL	DESCRIPTION
EZ-108SA	Single Animal Vaporizer Unit

Classic Vaporizer Unit



Unit incorporates a manual five-output manifold that includes a new flowmeter configuration that improves upon the original E-Z Anesthesia design.

MODEL	DESCRIPTION
EZ-150C	Classic Vaporizer Unit

Auto Flow Vaporizer Unit



Featuring an automatic five-output manifold that does not require flowmeters.

MODEL	DESCRIPTION
EZ-190F	Auto Flow Vaporizer Unit

Vaporizers

Calibrated 0.25 to 5% using a laser refractometer for the specified anesthetic drug. Complete with safety lock to help prevent accidental turn-on of dial. Fluctuations in temperature, flow rate and duration of use is automatically compensated for during use. When used with I.P.P.V. the variation in output is negligible.

Other drug type vaporizers available for Halothane, Sevoflurane, Enflurane, call for pricing. Drug not included.



MODEL	DESCRIPTION
VP-I	Cage Mounting/Well Fill, Isoflurane

CO₂ Chamber

The cleanest CO₂ induction chamber on the market!



- ▶ For mice and rats
- ▶ Simple, quick and easy to use!
- ▶ Small foot print – 9" diameter, easy to keep on bench
- ▶ Quick connect with valve – closes when disconnected, keeps CO₂ in tube and chamber
- ▶ Door allows user to place animals in chamber without losing CO₂. Provides for ultra quick animal induction
- ▶ 7' tube – easily connects to CO₂ source
- ▶ Disposable bag liner – animal feces and urine remain in bag with animal Chamber is always clean
- ▶ Delivery tube within chamber – fills chamber from bottom, decrease induction time, "more humane"
- ▶ Clear acrylic top – easy to see animals in chamber
- ▶ Solid sides – prevents viewing of animals during the process
- ▶ Includes see thru acrylic lid with door and quick connect with valve, 7' tubing, 50 disposable insert bags

MODEL	DESCRIPTION
COIC	CO ₂ Chamber
COBL	Disposable Liner Bags (50 bags/pk)

Induction Chamber



Clear, durable, acrylic constructed induction chamber. Fresh anesthetic gas from vaporizer or manifold enters a barbed fitting and is directed to the bottom of chamber. Scavenged gas exits the opposite fitting to waste gas

site. Routered top ensures perfect fit. No corners facilitate easy proper cleaning. Stainless steel false floor and 10' blue tubing provided. Accepts tubing from 0.25" - 0.375" inner dimension.

MODEL	DESCRIPTION
IC6X4	Small Induction Chamber Inner Dimensions: 5.25"W x 3.5"H • Overall Dimensions: 7"W x 7"H
IC8X8	Large Induction Chamber Inner Dimensions: 7.5"W x 8"H • Overall Dimensions: 10"W x 10"H



Gas Anesthetizing Box



For use with rodents

The 0.25" thick transparent plastic anesthetizing box allows for constant observation while anesthetizing. Helps protect against accidental overdosing

For use with rats and mice. Easy to move machine tooled sliding top. Made of durable plastic, this box should last for years.

Not for use with liquid organic solvents.

MODEL	DESCRIPTION
AB-1	Small Box 10"L x 4"W x 4"H (25.4cm L x 10.16cm W x 10.16cm H)
AB-2	Large Box 10"L x 8"W x 8"H (25.4cm L x 20.3cm W x 20.3cm H)
AB-4	Extra Small Box 4"L x 4"W x 4"H (10.2cm L x 10.2cm W x 10.2cm H)

Additional sizes are available, please call for a quote

New! Pureline® OC4000

This revolutionary Pureline® OC4000 O₂ concentrator provides on-demand oxygen to any existing anesthesia system. While similar machines have been in use in Europe for years, Scivena Scientific has perfected the technology, added safety features, and now is making this money-saving equipment available in the USA. The Pureline® OC4000 O₂ Concentrator is FDA approved, UL tested, and backed by a three year warranty.

- ▶ Ready for use with existing anesthesia equipment
- ▶ Extracts FDA-approved USP 93% pure O₂ from the air and delivers on demand-up to 5 LPM
- ▶ Uses industry standard DISS male thread connection
- ▶ Includes 10' of high pressure O₂ hose with female DISS end fittings
- ▶ FDA approved, UL tested
- ▶ Oxygen purity and flow safety alarms
- ▶ Quiet 40-dBA operation
- ▶ Made in USA, state-of-the-art manufacturing with ISO quality and TUV SUV safety certifications



Specifications:

Dimensions: 14"x9"x23"

Electrical Power Supply: Rating: 115/230V 60Hz
Average Power: 330W(avg)
Protection Class: Class II
Mains Protection: 5A

Coarse cabinet filter should be cleaned as needed in your environment. (Part number OC4000-1)

Change fine intake filters during yearly anesthesia service call or every two years. (Part number OC4000-2)

MODEL	DESCRIPTION
OC4000	Pureline OC4000
OC4000-1	Coarse Cabinet Filter
OC4000-2	Fine Intake Filter

New! Pureline® OC6000 Oxygen Concentrator with E-tank Back-Up

Works with any existing anesthesia system!

Pureline® OC6000 provides on-demand oxygen to any existing anesthesia system. Built in E-tank manifold allows mobile use of the machine without power and protects your subject in case of power failure. Pureline® OC6000 O₂ Concentrator is FDA approved, UL tested and includes three year warranty

- ▶ Ready for use with existing anesthesia equipment
- ▶ Complete oxygen concentrator, frame and valve assembly
- ▶ Extracts medical grade oxygen (USP 93%) from the air and delivers on demand-up to 5 LPM
- ▶ Uses industry standard DISS male thread connection
- ▶ Safety back-up oxygen supply (standard E tank) with fully integrated O₂ flush with industry standard 30 LPM maximum flow
- ▶ Ability to use oxygen flush with simple built in switch
- ▶ Oxygen purity and flow safety alarms
- ▶ Quiet 40-dBA operation
- ▶ Made in USA, state-of-the-art manufacturing with ISO quality and TUV SUV safety certifications
- ▶ Sturdy A-frame base with compact 18" square footprint



Specifications:

Footprint: 18" x 18"

Shipping Box Dimensions: Concentrator - 19" x 14" x 27"
Frame - 36" x 23" x 27"

Shipping Weights: Concentrator - 38lbs.
Frame - 55lbs.

MODEL	DESCRIPTION
OC6000	Pureline OC6000



EZ-R20C Oxygen Concentrator

Eliminates the need for oxygen tanks or an in-house oxygen source.

- ▶ Extracts nitrogen from room air, outputs oxygen at 90% minimum purity
- ▶ Saves money in oxygen costs
- ▶ Eliminates labor costs and inconvenience of tank changes
- ▶ Proven reliability with thousands in use around the world
- ▶ Quiet operation at 49dB sound level
- ▶ Easy portability with rollerbase design
- ▶ Maximum output flow rate of up to 8LPM and fixed pressure of 20psi
- ▶ Weight is manageable at 54 lbs
- ▶ Able to supply oxygen to multiple systems simultaneously
- ▶ Well-suited for use in barrier facilities



MODEL	DESCRIPTION
EZ-R02C	Oxygen Concentrator

OxyDial™ 0%-100% Blender HypoxyDial™ 0%-21% Blender

Allows user to quickly and easily dial oxygen fraction (FIO₂) and O₂/N₂ gas mixtures. Using universal fittings, the system connects to centralized supplies bottles or wall outlets of oxygen and nitrogen. User simply turns a dial to set oxygen percentage, and can adjust outlet flow rate to obtain a constant stream of gas at desired FIO₂ and flow rate. System is purely mechanical and uses no electrical power. Includes all hoses and fittings to connect from bottled gas source to blender.



MODEL	DESCRIPTION
SLS-000500	OxyDial™ (with pressure hoses and regulators)
SLS-000503	Hypoxy Dial™ (with pressure hoses and regulators)

Oxygen Regulators



EZ-320



EZ-330

MODEL	DESCRIPTION
EZ-320	Oxygen Regulator with H-Cylinder fitting (preset at 50 psi)
EZ-330	Oxygen Regulator with E-Cylinder fitting (preset at 50 psi)

Tamper-Proof Dual Flow Regulator

Compliant with AVMA Guidelines

- ▶ Factory preset to your specific cage size
- ▶ Easy operation with simple on/off valve
- ▶ 0.5 to 12 liter per minute (LPM) range
- ▶ Visual indicator ensures correct gas flow
- ▶ Simultaneously operate two different size cages
- ▶ Connects directly to CO₂ cylinder with CGA-320 fitting
- ▶ Includes two 6' hoses with quick disconnect fitting



MODEL	DESCRIPTION
EP-3300	Tamper-Proof Dual Flow Regulator

Low Pressure Regulator with Flowmeter

0.5-12 LPM

AVMA compliant. Precise control of CO₂ flow. Calibrated specifically for CO₂ gas. 0.5-12 LPM range. Connects directly to CO₂ cylinder with CGA-320 fitting. Optional CGA-970 yoke fitting available. Includes a six foot hose with quick-disconnect fitting that attaches to stainless steel lids.



MODEL	DESCRIPTION
EP-1305	Low Pressure Regulator with Flowmeter

New! Adjustable Flow Meter

Compliant with AVMA Guidelines

- ▶ 0.5 - 12 LPM
- ▶ Manually adjust flow rate for cage size
- ▶ Connects directly to house gas source with standard CO₂ DISS 1080 female connection (other connections available upon request)
- ▶ Includes 6' hose with quick disconnect fitting



MODEL	DESCRIPTION
EP-5000	EP-5000 Adjustable Flow Meter with DISS
EP-5000-BR	EP-5000-BR Adjustable Flow Meter with Bracket bolts directly to wall



Tamper-Proof CO₂ Flow Meter

Compliant with AVMA Guidelines

- ▶ Factory preset to your specifications
- ▶ Easy operation with simple on/off valve
- ▶ 0.5 to 12 liter per minute (LPM) range
- ▶ Visual indicator ensures correct gas flow
- ▶ Tamper-proof cap
- ▶ Includes 6' hose with quick disconnect fitting
- ▶ EP-6000-BR Includes bracket for ease of installation, bolts directly to wall

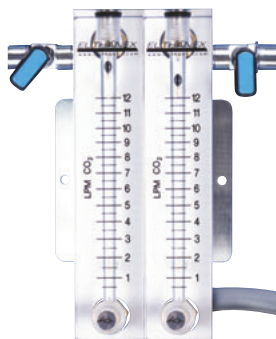


MODEL	DESCRIPTION
EP-6000	Tamper-Proof Flow Meter with Diss
EP-6000-BR	Tamper-Proof Flow Meter with wall bracket

Tamper-Proof Dual CO₂ Flow Meter

Compliant with AVMA Guidelines

- ▶ Factory preset to your specific cage size
- ▶ Easy operation with simple on/off valve
- ▶ 0.5 to 12 liter per minute (LPM) range
- ▶ Visual indicator ensures correct gas flow
- ▶ Tamper-proof flow adjustment
- ▶ Includes 6' hose with quick disconnect fitting
- ▶ Simultaneously operate two different size cages



MODEL	DESCRIPTION
EP-7000-BR	Tamper-Proof Dual Flow Meter with bracket

Adjustable Tabletop Flow Meter

Compliant with AVMA Guidelines

- ▶ 0.5 - 12 LPM
- ▶ Adjustable flow rate for different cage sizes
- ▶ Tabletop stand for easy placement
- ▶ Includes two 6' hoses with quick disconnect fitting

To determine AVMA compliant flow rates, use the equation below:

$$\frac{\text{Height (in)} \times \text{Width (in)} \times \text{Length (in)}}{61} = \text{Liters} \times 20\% = \text{flow rate}$$

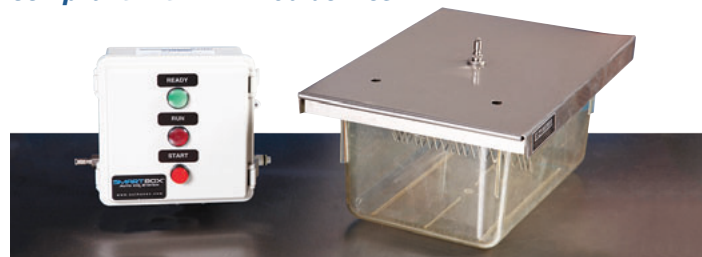
The 2013 AVMA Euthanasia Guidelines recommend 10 - 30% fill rate.

MODEL	DESCRIPTION
EP-1500	Adjustable Tabletop CO ₂ Flow Meter



SMARTBOX® Lab Control Unit

Compliant with AVMA Guidelines

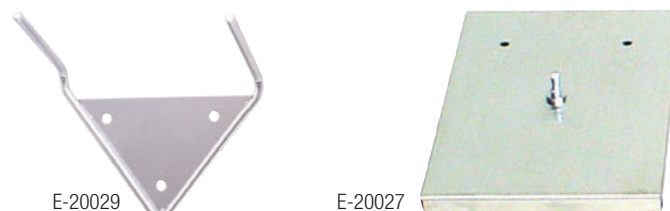


Controller automates on/off gas flow at the push of a button, delivering CO₂ to individual cage or Euthanex lid. This economical unit is designed for small scale use by individual investigators in their laboratories. Operates at a fixed flow rate based on the external CO₂ source. Lids and chambers sold separately.

- ▶ Treats animals at individual cage level
- ▶ Designed for investigators that need to retrieve animals quickly
- ▶ Utilizes full range of Euthanex cage lids or existing induction chamber
- ▶ Minimizes operator error and excessive gas use
- ▶ Automatic shut-off saves gas and protects personnel
- ▶ Easily attaches to wall

MODEL	DESCRIPTION
EA-31000	1 Programmable timing preset and 1 Gas Output
EA-32000	2 Programmable timing presets and 1 Gas Output
EA-34000	4 Programmable Timing Presets and 4 Gas Outputs includes: four EA-1130 lab unit hoses
EA-32002	2 Programmable Timing Presets and Individual Start Times, 2 Gas Outputs, includes: two EA-1130 lab unit hoses
EA-34004	4 Programmable Timing Presets and Individual Start Times includes: four EA-1130 lab unit hoses

Euthanex Lids



Euthanex Lid system has become an industry standard. Simply by removing the water bottle from the wire cage cover and placing Euthanex Lid over the host cage, user is ready to perform euthanasia. Eliminates the need to transfer animals.

Lids are available in a variety of sizes to accommodate virtually all-plastic cage sizes designed for small lab animals. Heavy-duty stainless steel lids have a stem for easy connections to the regulator hose. A foam lid gasket assures a good seal. Multiple lids may be used to treat several cages at once.

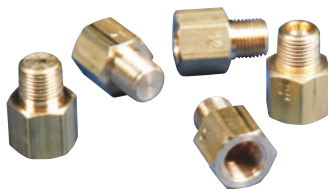
MODEL	DESCRIPTION
E-20027	Super Small Lid (13" x 9") - Stainless Steel
E-20028	Small Lid (16" x 10") - Stainless Steel
E-20030	Square Lid (13" x 13") - Stainless Steel
E-20032	Medium Lid (20.5" x 11") - Stainless Steel
E-20033	High Density Mouse Lid (13" x 17") - Stainless Steel
E-20034	Large Lid (23" x 16.5") - Stainless Steel
E-20029	Lid Storage Bracket - Wall mounted bracket holds up to four lids
EP-1130	6' Hose with quick disconnect
E-20035	Thoren Rat Lid (24" x 12.5")
E-20039	Opti Mouse Lid
E-20040	Opti Rat Lid



Anesthesia and Euthanasia

New! Flow Restrictor

When used with a Euthanex lid, avoids need to adjust flow rate due to a change in cage number. For use with any size Euthanex lid between lid and lid stem.



MODEL	DESCRIPTION
FR-SA	Flow Restrictor

CO₂ Flowmeter

Compliance Made Easy

- Calibrated to accurately deliver CO₂ to chamber
- Easy to connect to any chamber
- Small profile
- Three-way ball valve offers quick chamber fill when needed
- Easy to set CO₂ flowrate
- Wall mount option



2013 AVMA Guidelines for CO₂ Euthanasia

"General recommendations— carbon dioxide is acceptable... using a gradual fill method is less likely to cause pain due to nociceptor activation by carbonic acid prior to onset of unconsciousness; a displacement rate from 10% to 30% of the chamber volume/min is recommended... The practice of immersion, where conscious animals are placed directly into a container prefilled with 100% CO₂, is unacceptable."

Which CO₂ flowmeter to use?

Calculate the total volume of your chamber in cubic inches (in³). Your chamber volume should fall between the min and max of the selected CO₂ flowmeter for the selected chamber displacement rate.

CO ₂ FLOWMETER MODEL/RANGE	CHAMBER VOLUME (in ³)	CHAMBER DISPLACEMENT RATE		
		10%	20%	30%
XL900 3 - 25 l/min	max min	15,156 1,838	7,500 925	5,040 612
LC500 1 - 10 l/min	max min	6,120 598	3,022 290	2,012 210
SC100 0.5 - 5 l/min	max min	3,060 315	1,537 150	1,001 96

Example Calculations for 20% Chamber Vol/min

Large Rat Cage

$$19" \times 10" \times 8" = 1520 \text{ in}^3$$

$$1520 \text{ in}^3 \times 0.20 = 304 \text{ in}^3/\text{min} \text{ (flow rate wanted } 304 \text{ in}^3/\text{min)}$$

$$304 \text{ in}^3/\text{min} \text{ divided by } 61.024 = 4.98 \text{ l/min AIMS CO}_2 \text{ flowmeter setting.}$$

COIC CO₂ Chamber (cylinder)

$$L \times \text{Radius}^2 \times \text{Height}$$

$$3.14 \times 4'^2 \times 7" = 352 \text{ in}^3$$

$$352 \text{ in}^3 \times 0.20 = 70 \text{ in}^3/\text{min} \text{ (flow rate wanted } 70 \text{ in}^3/\text{min)}$$

$$70 \text{ in}^3/\text{min} \text{ divided by } 61.024 = 1.15 \text{ l/min CO}_2 \text{ flowmeter setting}$$

MODEL	DESCRIPTION
CO2-SC100	flow rates 0.5 - 5 l/min
CO2-LC500	flow rates 1 - 10 l/min
CO2-XL900	flow rates 3 - 25 l/min
CO2-WMB2	wall mount brackets (only)
CO2-FMT2	10 ft. tubing only, 5/16" id x 1/16" od

Quietek™

Automated euthanization device ensures AVMA compliance



Cage and cover sold separately



Cage sold separately

Ensure that laboratory rodents are humanely euthanized without disrupting laboratory workflow. Quietek is an affordable, fully-automated device specifically designed to comply with 2013 AVMA guidelines

- **Adheres to stringent new guidelines** - The new 2013 AVMA Guidelines for Euthanasia of Animals state that flow rate for lab rodent CO₂ euthanasia systems should displace 10% to 30% of chamber or cage volume/minute. Prefilled chambers are now unacceptable. NIH requires all new research plans and renewals be evaluated using these guidelines.
- **Takes the guesswork out of euthanasia** - Designed by animal research facility managers and scientists, easy to use, accurate system ensures that users correctly administer CO₂ by automatically calculating gas delivery for cage volume and desired fill rate. CO₂ conditions will be consistent every time, thereby eliminating a source of variation.
- **Fail-safe and easy to operate** - Simply push start. There are no valves to turn (or accidentally leave open) between runs and no regulators to adjust. Ideal for inexperienced, sleep deprived, or overworked laboratory technicians. Quietek also features a key lock that prevents unwanted or accidental tampering with settings.
- **Reduces impact on lab** - Quietek seamlessly integrates into current protocols. Use it with most common chambers or cages. Lids are available in several sizes.
- **Works on wide range of chamber sizes** - models are available for chamber sizes as small as 0.5L to as large as 200L providing flow rates from 0.05 LPM to 60 LPM.

MODEL	DESCRIPTION
QTK-1	Quietek 1 Carbon Dioxide delivery system. Single port system will deliver 10-30% volume/minute to a rodent cage
QTK-2	Quietek 2 Carbon Dioxide delivery system. Dual port system will deliver 10-30% volume/minute to 2 separate rodent cages
QTK-SC	Single port system will deliver 10-30% volume/minute to a 0.5-10L chamber
QTK-SCT	Carbon Dioxide delivery system, single port system with RapidFill option for fastest results
QCVR-13x9	Cage Lid - Small rodent cage lid for use with Quietek system. 13" x 9"
QCVR-16x11	Cage Lid - Medium rodent cage lid for use with Quietek system. 16" x 11"
QCVR-24X17	Cage Lid - Large rodent cage lid for use with Quietek system. 24" x 17"
QT6-B	Quietek Tubing 6 feet of tubing to connect Quietek to a cage lid. Comes with a quick connect fitting. Blue hose

BIOSEB

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Web: www.bioseb.com



Anesthesia Pole Stand



- For portable transport of E-Z Anesthesia systems with a minimal footprint.
- Accommodates each of our three New Generation E-Z Anesthesia systems
- Convenient, slide-on mounting
- Swivel top allows precise positioning
- Accommodates two E-tanks
- Stable five-wheel base
- Optional Mayo Tray for surgical tools available – call for pricing

MODEL	DESCRIPTION
E-28000	Anesthesia Pole Stand

Stainless Steel Mobile Workstation



E-25000
(Components shown sold separately)

Mobile workstations constructed of heavy-duty stainless steel with locking casters, can easily move to multiple locations.

Work surface of 3.5' x 2' Open side shelves accommodate up to 2 CO₂ tanks and 2 O₂ tanks. Below work surface is an open shelf and a 2-door locking cabinet. System can be conveniently set up for maximum flexibility and mobility.

Small Mobile Workstation integrates all E-Z anesthesia components into one convenient mobile workstation. Half the size of the EZ-25000 constructed of the same materials. The top work surface measures 22" x 21" and comes with a locking cabinet and interior shelves.

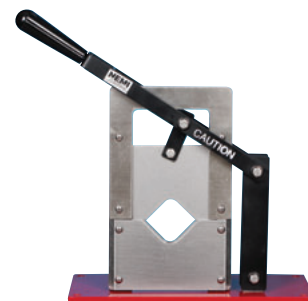
MODEL	DESCRIPTION
E-25000	Mobile Workstation
E-27000	Small Mobile Workstation



E-27000
(Components shown sold separately)

Nemi Guillotine

- Easy blade replacement
- Mounting plates for all models (optional)
- Manufactured using only the finest materials
- Built to stay in your lab
- Extremely cost effective



Nemi Guillotine Maintenance Kit:

Includes all the tools needed to service your guillotine; wrenches screwdrivers, sharpening stone, sharpening oil, lubricating oil and spare hardware all housed in a tool box along with instructions.

MODEL	DESCRIPTION
NS-801	Nemi Guillotine, Mouse, 1.5" opening along side
NS-802	Nemi Guillotine, Rodent, 2" opening along each side
NS-803	Nemi Guillotine, Rodent, 3" opening along side
NS-804	Nemi Guillotine, larger subject, 4" opening along each side
NS-806	Nemi Guillotine, larger subject, 6" opening along each side
NS-801-RB	801 Replacement Blades
NS-802-RB	802 Replacement Blades
NS-803-RB	803 Replacement Blades
NS-804-RB	804 Replacement Blades
NS-806-RB	806 Replacement Blades
NS-KIT	Nemi Guillotine Maintenance Kit

DecapiCones®

Economical mouse and rodent restrainer



DC-200



MDC-200

Make injections and decapitation quicker and easier with Braintree's DecapiCones®. Tapered plastic film tubes provide quick and easy restraint of rats, mice and other small animals. I.P. injections can be made directly through the film! DecapiCones® restrain post-decapitation kicking and prevent personal contact with feces or urine.

A unique dispenser holds DecapiCones® open and ready for use. Simply hold DecapiCone in one hand and introduce the animal with the other. Animals enter readily, heading for the breathing hole at the small end. Then roll and squeeze the large end closed.

May be used repeatedly for injections and discarded when soiled. For decapitation, hold at the rear and insert the small end into decapitator.

MODEL	DESCRIPTION
MDC-200	DecapiCones® for Mice (Includes: 2 dispensers, 100 bags each. Total 200 cones)
DC-200	DecapiCones® for Rats (Includes: 4 dispensers, 50 bags each. Total 200 cones)
DCL-120	DecapiCones® for Large Rats (500-800g) (Includes: 4 dispensers, 30 bags each. Total 120 cones)



Gloves

T/FLEX® Plus Gloves

Cut resistant gloves for animal handling



Gloves are suitable for the safe handling of small laboratory animals including rodents. T/FLEX® PLUS gloves are a 13 gauge seamless knit shell; material is Dyneema® engineered fibers plated with Lycra® -

Spandex®, Thermax® and the antimicrobial treatment Alphasan® combine to provide a comfortable glove featuring the highest cut resistance. Gloves conform to international safety standards for cut resistance.

MODEL	DESCRIPTION	SIZE
TFL-13G6	T/flex Plus handling gloves.	Extra Small
TFL-13G7	T/flex Plus handling gloves.	Small
TFL-13G8	T/flex Plus handling gloves.	Medium
TFL-13G9	T/flex Plus handling gloves.	Large
TFL-13G10	T/flex Plus handling gloves.	Extra Large

Kevlar Goatskin Handling Gloves

Black goatskin leather glove, lined with 100% fine knit Kevlar. May be worn on their own for handling small animals. Fabricated for flexibility, comfort and safety during long periods of wear. Sold as pairs.



MODEL	DESCRIPTION	SIZE
KVL-LTH-S	Kevlar Deerskin Handling Gloves.	Small
KVL-LTH-M	Kevlar Deerskin Handling Gloves.	Medium
KVL-LTH-L	Kevlar Deerskin Handling Gloves.	Large
KVL-LTH-X	Kevlar Deerskin Handling Gloves.	Extra Large

Armour Touch Metal Mesh® Gloves

Protects hands from teeth and claws when handling small animals

YES! You have seen this material used for anti-shark suits.

Braintree Scientific's metal mesh gloves provide security and a sure grip. This is the original and only metal mesh glove for rodent handling.

Experience shows animals are easier to control when handlers are relaxed and confident. Much better than leather since metal mesh is more flexible, is readily cleaned, won't stain or corrode and doesn't carry odors.

Gloves may be worn over surgical gloves. Adjustable buckle wrist band prevents slipping. Convert right to left by turning inside out. Order by size.

Please note these gloves run large.



Don't be fooled by imitations!

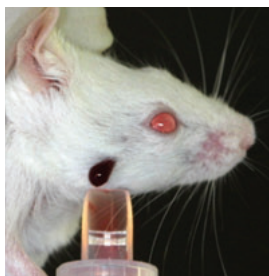
MODEL	DESCRIPTION	SIZE
MMG-XS	Armour Touch Metal Mesh Gloves	Extra Small 7
MMG-S	Armour Touch Metal Mesh Gloves	Small 8
MMG-M	Armour Touch Metal Mesh Gloves	Medium 9
MMG-L	Armour Touch Metal Mesh Gloves	Large 10

*Price per glove - ambidextrous (approximate surgical glove size)



Sample Prep and Collection

Blood Collection for Facial Vein (Submandibular) Blood Samples



GoldenRod Animal Lancet allows user to take multiple blood samples from small animals in the same day and never lose or hurt an animal. Speed up the blood collecting process with this specially designed and sterile, disposable blood lancet that is inexpensive, easy, and fast to use. Available in a wide variety of point sizes for various size animals and volumes required.

Developed for researchers that requested a shorter point for use on very young mice and mice of all ages where only one or two drops of blood are needed. The shorter the point length, the less pain and trauma for the animal, and the quicker the healing.

- ▶ Safe - won't hurt the animal
- ▶ Easy to use - works every time
- ▶ Consistent amounts of blood each test
- ▶ Rapid collection - blood flow stops in seconds
- ▶ Allows multiple tests of the same animal
- ▶ Fast - Sterile ready for use
- ▶ Disposable - no cross contamination
- ▶ Humane - similar lancets are used on humans
- ▶ Inexpensive - reduce research costs

Goldenrod Lancets come in several point lengths for various size animals and blood volumes required. Choose the proper lancet point length corresponding to the age of the mouse and the volume of blood needed.

Point Length Recommendations:

For Mice: 3mm - for only 1 or 2 drops
4mm - under 2 months
5mm - 2 to 6 months
5.5mm - over 6 months

For Rats: 5.5mm - 6 mm under 3 months
6mm or 7mm - 3 to 4 months
7mm or 8mm - over 5 months

Always use the shortest point possible to draw the amount of blood required.

Always be careful when doing multiple bleedings in one day, or daily bleedings, that the volume of blood harvested does not exceed the total volume recommended for that size animal's safety and health.

MODEL	DESCRIPTION
GR-3MM	Goldenrod Animal Lancet 3mm Sterile, 5 trays of 200
GR-4MM	Goldenrod Animal Lancet 4mm Sterile, 5 trays of 200
GR-5MM	Goldenrod Animal Lancet 5mm Sterile, 5 trays of 200
GR-5.5MM	Goldenrod Animal Lancet 5.5mm Sterile, 5 trays of 200
GR-6MM	Goldenrod Animal Lancet 6mm Sterile, 5 trays of 200
GR-7MM	Goldenrod Animal Lancet 7mm Sterile, 5 trays of 200
GR-8MM	Goldenrod Animal Lancet 8mm Sterile, 5 trays of 200

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Microvette® CB 300

Capillary collection and sample container in one unit



The Microvette® CB 300 capillary tube, along with its attached push cap, is supplied complete with a carrier tube that is also suited for transport and centrifugation. Cylindrical outer tube is ideal for attachment of a barcode label for direct sample analysis.

Extremely slim design of the Microvette® CB 300's capillary tube ensures optimum serum/plasma recovery following centrifugation.

MODEL	DESCRIPTION	UNITS
MV-CB300-16440-BX	Serum/Clotting activator	100/pk
MV-CB300-16440-CS	Serum/Clotting activator	1000/cs
MV-CB300-16443-BX	Lithium-Heparin	100/pk
MV-CB300-16443-CS	Lithium-Heparin	1000/cs
MV-CB300-16444-BX	Hematology/Potassium EDTA	100/pk
MV-CB300-16444-CS	Hematology/Potassium EDTA	1000/cs

Microvette® 100/200

Provides all the benefits of a universally suitable capillary blood collection system



The Microvette® 100/200 offers the ideal solution for collection of even the smallest blood volumes. Preassembled end-to-end capillary ensures a controlled collection to capillary technique. The Microvette® enables blood sampling using either the special rim or gravity-flow principle without any problem.

Depending on individual requirements, the Microvette® is available with a cylindrical inner tube for optimum mixing results or a conical inner tube for a high serum/plasma supernatant. Cylindrical outer container is ideal for barcodes and patient labels. Special cap design minimizes aerosol effect when tube is opened and provides safe sealing features.

MODEL	DESCRIPTION	UNITS
MICROVETTE 100 -100µL, Conical inner tube		
MV-100-201280-BX	Serum	100/pk
MV-100-201280-CS	Serum	1,000/cs
MV-100-201282-BX	Lithium-Heparin	100/pk
MV-100-201282-CS	Lithium-Heparin	1,000/cs
MICROVETTE 100 -100µL, Round bottom inner tube		
MV-100-201278-BX	Potassium EDTA	100/pk
MV-100-201278-CS	Potassium EDTA	1,000/cs
MICROVETTE CB200 -200µL, Conical inner tube		
MV-200-201290-BX	Serum	100/pk
MV-200-201290-CS	Serum	1,000/cs
MV-200-201292-BX	Lithium-Heparin	100/pk
MV-200-201292-CS	Lithium-Heparin	1,000/cs
MV-200-201289-BX	Glucose	100/pk
MV-200-201289-CS	Glucose	1,000/cs
MICROVETTE CB200 -200µL, Round bottom inner tube		
MV-200-201291-BX	Serum-Gel	100/pk
MV-200-201291-CS	Serum-Gel	1,000/cs
MV-200-201288-BX	Potassium-EDTA	100/pk
MV-200-201288-CS	Potassium-EDTA	1,000/cs

New! Microvette® 300/500

Blood collection with collection rim

These Microvette® tubes are ideal for collection of blood using gravity-flow principle of collection. Any part of the entire rim can be used. The special conical design of the Microvette® 300's inner tube enables thorough mixing, even with small sample volumes. Microvette® offers all the advantages of a modern blood collection system:

- ▶ Choice of different inner tube designs with 300 or 500 µl volume capacity and corresponding graduation
- ▶ Special twist cap design is easy to open and minimizes aerosol effect
- ▶ Cylindrical outer container is ideal for barcode or patient labels



MODEL	DESCRIPTION	UNITS
Microvette 300		
MV-300-201308-PK	Serum	100/pk
MV-300-201308-CS	Serum	1,000/cs
MV-300-201309-PK	Lithium-Heparin	100/pk
MV-300-201309-CS	Lithium-Heparin	1,000/cs
Microvette 500		
MV-500-201341-BX	EDTA	100/pk
MV-500-201341-CS	EDTA	1,000/cs
MV-500-201343-BX	Serum	100/pk
MV-500-201343-CS	Serum	1,000/cs
MV-500-201344-BX	Serum-Gel	100/pk
MV-500-201344-CS	Serum-Gel	1,000/cs
MV-500-201345-BX	Lithium-Heparin	100/pk
MV-500-201345-CS	Lithium-Heparin	1,000/cs
MV-500-201346-BX	Lithium-Heparin Gel	100/pk
MV-500-201346-CS	Lithium-Heparin Gel	1,000/cs

Prepared Micro Tubes with Attached Push Cap Closure

- ▶ Skirted, conical base and label
- ▶ Preparations: Serum clotting activator, plasma lithium heparin, hematology potassium EDTA and coagulation citrate



MODEL	DESCRIPTION	UNITS
PMT-1500-PK	Serum-Gel, 1.1 ml	100/pk
PMT-1500-CS	Serum-Gel, 1.1 ml	1,000/cs
PMT-1501-PK	Serum, 1.3 ml	100/pk
PMT-1501-CS	Serum, 1.3 ml	1,000/cs
PMT-1503-PK	Lithium Heparin, 1.3 ml	100/pk
PMT-1503-CA	Lithium Heparin, 1.3 ml	1,000/cs
PMT-1504-PK	EDTA, 1.3 ml	100/pk
PMT-1504-CS	EDTA, 1.3 ml	1,000/cs
PMT-1506-PK	Citrate, 0.5 ml	100/pk
PMT-1506-CS	Citrate, 0.5 ml	1,000/cs



Multivette® 600

Capillary and venous blood collection in one system

The unique Multivette® 600 is the only product that can collect both venous and capillary blood. For venous blood collection, a Luer needle is connected to the capillary tube of the Multivette®, which automatically fills by normal venous pressure. Capillary blood is performed using the end-to-end principle. The special pre-assembled capillary tube is designed to hold 600µL of blood.



MODEL	DESCRIPTION	UNITS
MV-600-51670-BX	Serum/Clotting Activator	100/pk
MV-600-151670-CS	Serum/Clotting Activator	1000/cs
MV-600-151674-BX	Serum Gel/Clotting Activator	100/pk
MV-600-151674-CS	Serum Gel/Clotting Activator	1000/cs
MV-600-151673-BX	Plasma /Lithium Heparin	100/pk
MV-600-151673-CS	Plasma /Lithium Heparin	1000/cs
MV-600-151675-BX	Plasma Gel/Lithium Heparin	100/pk
MV-600-151675-CS	Plasma Gel/Lithium Heparin	1000/cs
MV-600-151671-BX	Hematology/Potassium EDTA	100/pk
MV-600-151671-CS	Hematology/Potassium EDTA	1000/cs
MV-600-151672-BX	Glucose/Fluoride	100/pk
MV-600-151672-CS	Glucose/Fluoride	1000/cs

Minivette® POCT

Easy sample recovery due to optimal capillary features

- Precise dispensing of small whole blood volumes
- Prevents spillage during transfer to test card
- Available in 20µl and 50µl volumes
- Preparations: Neutral, heparin and EDTA



MODEL #	DESCRIPTION	COLOR CODE	UNITS
MP20-2111-PK	20 µl, neutral	White	200/pk
MP20-2111-CS	20 µl, neutral	White	1,000/cs
MP50-2111-PK	50 µl, neutral	White	200/pk
MP50-2111-CS	50 µl, neutral	White	1,000/cs
MP20-2112-PK	20 µl, Lithium Heparin	Orange	200/pk
MP20-2112-CS	20 µl, Lithium Heparin	Orange	1,000/cs
MP50-2112-PK	50 µl, Lithium Heparin	Orange	200/pk
MP50-2112-CS	50 µl, Lithium Heparin	Orange	1,000/cs
MP20-2113-PK	20 µl, EDTA	Red	200/pk
MP20-2113-CS	20 µl, EDTA	Red	1,000/cs
MP50-2113-PK	50 µl, EDTA	Red	200/pk
MP50-2113-CS	50 µl, EDTA	Red	1,000/cs

Prepared Micro Tubes with Screw Cap Closure

- Closure contains integral O-ring
- Sample volume 1.3ml
- Skirted, conical base
- Label

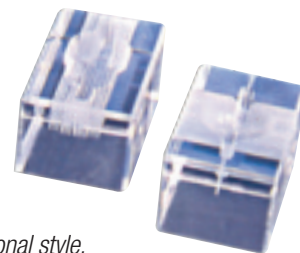


MODEL	DESCRIPTION	UNITS
MT-1392	Micro Tube, 1.3ml, Serum/Clotting Activator	1,000/cs
MT-1393	Micro Tube, 1.3ml, Plasma /Lithium Heparin	1,000/cs
MT-1395	Micro Tube, 1.3ml, Hematology/Potassium EDTA	1,000/cs
MT-1378	Micro Tube, 1.1ml, Serum/Gel	1,000/cs
MT-1350	Micro Tube, 1.3ml, Citrate	1,000/cs

Acrylic Matrices

High grade acrylic matrices are an economical method to obtain even slices of brain tissues from rats and mice.

These units include the spinal and olfactory bulb notches.



Order S for a sagittal style, and C for a coronal style.

MODEL	ANIMAL	SPECIFICATIONS
BS-A-5000C	Mouse	1mm section Coronal
BS-A-5000S	Mouse	1mm section Sagittal
BS-A-6000C	Rat	1mm section Coronal
BS-A-6000S	Rat	1mm section Sagittal

Precision Brain Slicer

The Precision Brain Slicer is designed to aid the basic research scientist in free hand dissection of discrete regions of rodent brain. Allows investigator to slice either coronal or sagittal sections through the brain (including the olfactory bulbs) at intervals as small as 1mm. All PBS's are identical to insure reproducible sections on a day to day, year to year basis.



Applications:

- Biochemical Pharmacology: The reproducible removal of small brain regions for biochemical analysis, such as the determination of neurotransmitter and metabolite concentrations. Individual brain areas may be either dissected or micropunched from slices formed
- Anatomy: Precise blocking of the brain prior to microtome sectioning
- Neurophysiology: Reproducible blocking of the brain prior to vibrotome sectioning

Order S for a sagittal style, and C for a coronal style.

MODEL	SPECIFICATIONS	CAVITY DIMENSIONS
BS-Z-2000C	Adult Mouse, 30gm	13.9 x 9.9 x 7.5mm
BS-Z-2000S	Adult Mouse, 30gm	13.9 x 9.9 x 7.5mm
BS-Z-3000C	Rat, 125-185gm	20 x 13 x 6.8mm
BS-Z-3000S	Rat, 125-185gm	20 x 13 x 6.8mm
BS-Z-4000C	Rat, 200-400gm	25.5 x 16 x 11.2mm
BS-Z-4000S	Rat, 200-400gm	25.5 x 16 x 11.2mm

Tissue Slicer Blades

MODEL	DESCRIPTION
BS-BLADES	25 count Steel Blades

Sterile Disposable Biopsy Punch with Plunger



MODEL	DESCRIPTION	UNITS
MTP-33-31AA	1mm diameter	25/box
MTP-33-31A	1.5mm diameter	25/box
MTP-33-31	2mm diameter	25/box
MTP-33-32	3mm diameter	25/box
MTP-33-34	4mm diameter	25/box

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Agarose LE

- ▶ Multi-purpose, high purity
- ▶ Green choice, free from organic solvents
- ▶ Enhanced resolution and clarity
- ▶ Low EEO/increase electrophoretic mobility
- ▶ RNase, DNase and protease free

Agarose LE is a highly purified agarose, suitable for a variety of molecular biology applications. It is refined using an advanced process that excludes the use of organic solvents, yielding a cleaner end-product with a significantly reduced environmental impact. Agarose LE can be used for analyses of proteins and nucleic acids of various sizes (150bp to 6kbp).

It's low EEO (≤ 0.13 -mr) promotes increased electrophoretic mobility, yielding improved resolution and shorter run times, allowing macromolecules and larger particles (subcellular fragments, viruses, etc.) to migrate more freely through the gel matrix. Consistently low EEO also provides a reduction in band distortion (caused by counterflow) that can result from the presence of excessive sulfate-rich negative ions.

Widely used for nucleic acid electrophoresis (analytical and preparative), protein electrophoresis (including radial immunodiffusion) and various blotting protocols. Easily soluble, free of nucleases, and easy to use. Highly transparent (forms a clear, colorless solution at 1g:100ml H₂O), and exhibits exceptionally low absorption of chemical staining agents. Pore size can be adjusted by simple modifications to the concentration ratio.

Formulated for high gel strength and integrity, Agarose LE exhibits exceptional thermal stability and mechanical resistance, ensuring safe, easy handling, regardless of whether a denaturing agent has been added.

Specifications:

Gel Strength: >1200g/cm² (1%)

Gel Temperature: 36°C $\pm$ 1.5°C (1.5%)

Melt Temperature: 880°C $\pm$ 1.5°C (1.5%)

EEO(-mr): 0.13

Moisture Content: <7%

Sulfate: <0.2%

RNase/DNase: None detected

Protease/Endonuclease: None detected

Storage Conditions: Room temperature

MODEL	DESCRIPTION
A-LE 1701	100g, standard grade
A-LE 1700	25g, standard grade
A-LE 1705	500g, standard grade
A-LE 2505	EZ Pack Agarose Tablets, 1000/pk (500g)
A-LE 2501	EZ Pack Agarose Tablets, 200/pk (100g)



Specialty Agarose

Low melt, hi-res and 3:1 grades

- ▶ Three "specialty" grades available
- ▶ Green choice, free from organic solvents
- ▶ Enhanced resolution with low background

The perfect choice when resolving small DNA/RNA fragments, isolating nucleic acids from gels or performing in-gel manipulations. Available in three grades, LM, HR and 3:1, to meet all electrophoretic needs.

▶ **Agarose LM** - Low melt agarose can be used to resolve samples from 200bp to 25kb. Perfect for prep gels as it has a melting point well below denaturation temperatures (65°C). Agarose remains liquid at 37°C, allowing for procedures such as restriction digests and labeling to be carried out in the gel

▶ **Agarose HR** - For applications such as analysis of STR's, AFLP's, and PCR products where separation of small fragments is required. Clear resolution of 20bp to 800bp fragments can be carried out in this intermediate melting agarose

▶ **Agarose 3:1** - Blended high resolution agarose is designed for separation of fragments less than 1,000bp. Gels made with Agarose 3:1 are suitable for analytical and blotting applications

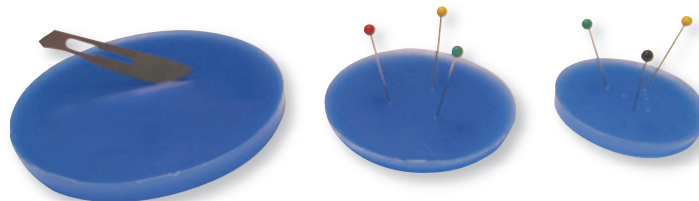
Manufactured under a "green" process that eliminates the use of organic solvents proving gels with enhanced resolution and clarity, low EEO and low backgrounds. All the agarose is tested to be RNase, DNase, Protease and Endonuclease free.

MODEL	DESCRIPTION
A1801-31	3:1 Blended
A1801-HR	HR, PCR Grade for DNA fragments between 20-800bp
A1801-LM	Low Melt



"Blue Wax" Tissue Processing Disc

Makes tissue processing easy and quick



Process tissue using a clean blue wax surface. Layout, pin, and trim tissue. Use for processing, inspecting, and documenting tissue pathology. "Blue Wax" is specially formulated to provide the proper consistency to allow pins to stick firmly and be easily removed.

MODEL	DESCRIPTION	QTY/PK
TPD-L	Large Tissue Processing Disc (4" dia., 0.25" thick)	10
TPD-M	Medium Tissue Processing Disc (2.75" dia., 0.25" thick)	10
TPD-S	Small Tissue Processing Disc (2" dia., 0.25" thick)	10
TPIN	Ball Head Tissue Pins, S/S (1.5" long)	50



"Blue Wax" Dissection Tray

Add a dissection tray with a wax base pinning surface for detailed dissections!

Specially formulated to provide proper consistency to allow pins to stick firmly and be easily removed. Dissection tray uses a completely environmentally safe wax product instead of "black wax" like product used in most other dissection trays. MSDS sheet for this product lists no toxic chemicals and no fire, health or reactivity hazards with this product. "Blue Wax" can be heated to renew surface and dissection tray can be reused several times.



MODEL DESCRIPTION

DTW1	Dissection Tray 9.5" x 7" x 1"
DTW5	Dissection Tray (five trays per pack)

Hybex™ Reusable Media Bottles

Manufactured from high quality, borosilicate 3.3 glass. With their superior chemical resistance, these bottles are ideal for storage of reagents, culture media, biological fluids and a variety of other aqueous and nonaqueous solutions.

A low coefficient of thermal expansion (3.3), provides temperature resistance that is far superior to that of standard lab glass (or soda lime glass). Hybex glass can withstand temp. -70 to 500°C, permitting repeated use in freezers, microwave and dry heat sterilization chambers.

All hybex media bottles include a drip-free sealing ring as well as a standard blue polypropylene (GL45) sealing cap. Bottles are also available with green, purple, white and yellow caps, or in an assortment pack containing two of each color.

Specifications:

Material: Hybex™ borosilicate glass (3.3)

Cap thread size: GL45*

Temperature range: -70° to 500°C

Sterilization: Autoclave or dry heat

Cap material: Polypropylene (140°C)

Cap colors: Standard blue, green, purple, yellow, white, assorted

Please replace -X with (-B) for blue, (-G) for green, (-P) for purple, (-Y) for yellow, (-W) for white or (-AS) for assorted caps (2 of each color)

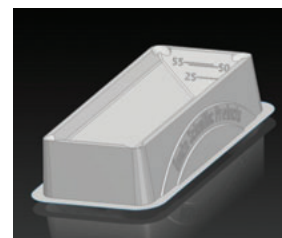
MODEL DESCRIPTION

B3000-50-X	Bottle, 50ml (GL32), 10/pk.
B3000-100-X*	Bottle, 100ml (GL45) 10/pk.
B3000-250-X*	Bottle, 250ml (GL45) 10/pk.
B3000-500-X*	Bottle, 500ml (GL45) 10/pk.
B3000-1000-X*	Bottle, 1000ml (GL45) 10/pk.
B3000-2000-X*	Bottle, 2000ml (GL45) 5/pk.
B3000-SP-X*	Bottle, StarterPack (GL45) (pack of 10 bottles, includes 2x100ml, 3x250ml, 3x500ml, and 2x1L)
B3000-CAP-X*	Replacement cap, (GL45), 10/pk.
B3000-RIN	Replacement sealing ring (GL45), 10/pk.
B3000-CAP2	Replacement cap, blue (GL32), 10/pk.
B3000-RIN2	Replacement sealing ring (GL32), 10/pk.
B3000-CAP-R	High Temperature Cap, red, up to 180°C, 10/pk.

* 50ml bottles are only supplied with GL32 sealing caps

Multi-Channel Lab Trough

The unique design of this reagent reservoir was created through many years of product development, manufacturing design and industry experience to be a durable and easy-to-use tool for the researcher. Choose from four different sizes of the lab trough, 15ml, 25ml, 50ml and 100ml in both sterile and non-sterile packaging.



The sterilization process is by gamma irradiation which ensures the absence of growth-affecting residue. Lab troughs are HDPE, White PS and Clear PET.

Multi-channel lab trough is a state-of-the-art tray developed by Quake Scientific Products.

- Graduations on narrow side inner wall provide a quick reference for remaining solutions
- Unique rigid base design to help avoid spillage
- Pour spouts on all four corners
- Unique bottom trough design allows for complete removal of small volumes of solutions
- Sterile lab troughs packaged in easy open bags

MODEL	DESCRIPTION	QTY/PK	MATERIAL
Q100-550S	5ml Shorti Sterile Bulk Packaged 10/bag	50	PET
Q100-550	5ml Shorti Non-Sterile Bulk	50	PET
Q200-550S	5ml Shorti Sterile Bulk Packaged 10/bag	50	PS
Q200-550	5ml Shorti Non-Sterile Bulk	50	PS
Q100-15100S	15ml Sterile Bulk Packaged 5/bag	100	PET
Q100-1550	15ml Non-Sterile Bulk	50	PET
Q100-1550S	15ml Sterile Individually Wrapped	50	PET
Q200-15100S	15ml Sterile Bulk Packaged 5/bag	100	PS
Q200-1550	15ml Non-Sterile Bulk	50	PS
Q200-1550S	15ml Sterile Individually Wrapped	50	PS
Q200-25100S	25ml Sterile Bulk Packaged 5/bag	100	PET
Q200-2550	25ml Non-Sterile Bulk	50	PET
Q200-2550S	25ml Sterile Individually Wrapped	50	PS
Q100-50100	50ml Non-Sterile Bulk	100	PET
Q100-50100S	50ml Sterile Individually Wrapped	100	PET
Q100-50200S	50ml Sterile Bulk Packaged 5/bag	200	PET
Q100-5050	50ml Non-Sterile Bulk	50	PET
Q100-5050S	50ml Sterile Individually Wrapped	50	PET
Q200-50100	50ml Non-Sterile Bulk	100	PS
Q200-50100S	50ml Sterile Individually Wrapped	100	PS
Q200-50200S	50ml Sterile Bulk Packaged 5/bag	200	PS
Q200-5050	50ml Non-Sterile Bulk	50	PS
Q200-5050S	50ml Sterile Individually Wrapped	50	PS
Q100-100100	100ml Non-Sterile Bulk	100	PET
Q100-100100S	100ml Sterile Individually Wrapped	100	PET
Q100-100200S	100ml Sterile Bulk Packaged 5/bag	200	PET
Q100-10050	100ml Non-Sterile Bulk	50	PET
Q100-10050S	100ml Sterile Individually Wrapped	50	PET
Q200-100100	100ml Non-Sterile Bulk	100	PS
Q200-100100S	100ml Sterile Individually Wrapped	100	PS
Q200-100200S	100ml Sterile Bulk Packaged 5/bag	200	PS
Q200-10050	100ml Non-Sterile Bulk	50	PS
Q200-10050S	100ml Sterile Individually Wrapped	50	PS

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96 Well PCR Plates

Non-Skirted, Flexible

- ▶ Original PCR plate design
- ▶ Flexible deck allows plate to be easily cut into strips or other desired sizes
- ▶ Sealing options: Heat sealing, adhesive sealing, PCR cap strips



MODEL	DESCRIPTION
SP0016	Box with 5 packs of 5 each

Semi-Skirted, Breakaway

- ▶ Segmented design allows plate to be cut into 24 and 48 well sections
- ▶ Versatile semi-skirted plate with broad range thermal cycler compatibility
- ▶ Sealing Options: Heat sealing, adhesive sealing, PCR cap strips



MODEL	DESCRIPTION
SP0127	Box with 5 packs of 5 each

Low Profile, Skirted

- ▶ Designed to reduce dead space and prevent condensation on side wall
- ▶ Fully skirted for automated handling
- ▶ 200µL maximum well volume
- ▶ Recommended for use with low volume reactions (<20µL)
- ▶ Sealing options: Heat sealing, adhesive sealing, PCR cap strips



MODEL	DESCRIPTION
SP0037	Box with 5 packs of 5 each

2.2ml, Square Well, Conical Bottom

- ▶ Conical bottom aids in complete sample retrieval
- ▶ Sealing options: Heat sealing, adhesive sealing, and mat caps
- ▶ SBS footprint, stackable, robot compatible



MODEL	DESCRIPTION
SP0103	Box of 50 (individually wrapped)

0.2ml PCR Tubes

- ▶ Uniform thin walls
- ▶ Compatible with standard 0.2ml thermal cycler blocks
- ▶ 0.25ml maximum volume
- ▶ Flat caps are frosted



MODEL	DESCRIPTION	QTY/BX
SP0019	0.2ml PCR Tube, domed cap	2 bags of 500
SP0018	0.2ml PCR Tube, flat cap	2 bags of 500

0.5ml PCR Tubes

- ▶ Uniform thin walls
- ▶ Compatible with standard 0.5ml thermal cycler blocks
- ▶ 0.6ml maximum volume
- ▶ Both domed and flat caps are frosted



MODEL	DESCRIPTION	QTY/BX
SP0022	0.5ml PCR Tube, domed cap	4 bags of 250
SP0021	0.5ml PCR Tube, flat cap	4 bags of 250

PCR Strip Caps



- ▶ Suitable for use with 96-well PCR plates as well as standard and low profile strip tubes
- ▶ Flat caps have labeled end tabs for strip orientation and removal
- ▶ QPCR strip caps are made from specially formulated clear polypropylene and have ultra-clear, highly polished surface. Ideal for QPCR and fluorescence detection

MODEL	DESCRIPTION	QTY/BX
SP0030	Flat PCR Strip Caps, strips of 8	10 packs of 12 strips
SP0516	Domed PCR Strip Caps, strips of 8	10 packs of 12 strips
SP0100	QPCR Strip Caps, Flat, strips of 8	10 packs of 12 strips
SP0078	Strip Cap tool sold individually	each



BioPette™ Plus

Autoclavable pipettes designed for exceptional comfort and accuracy



Precision pipettes are designed for exceptional comfort and accuracy. Lightweight and well balanced, they fit comfortably in either right or left hand with large digital display visible to user. Chemically resistant, maintenance-free seals and finely polished pistons provide unsurpassed accuracy sample after sample.

Continuously adjustable, digital micrometer is slightly recessed to prevent unintentional change and is protected from effects of thermal expansion by insulated body of the pipette. For convenience, volume can also be adjusted by turning push-button. Ergonomically positioned, tip ejector reduces fatigue during prolonged use.

Discovery pipettes have a universal shaft that accepts most pipette tips. Tip ejector is adjustable to accommodate various styles of tips and removable for pipetting into narrow tubes. Made from stainless steel, it will not rust, corrode or break. Discovery pipettes are fully autoclavable.

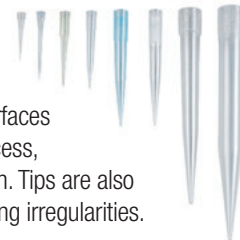
MODEL	DESCRIPTION
P3940-2	BioPette Plus Discovery Pipette, 0.1 - 2µL
P3940-10	BioPette Plus Discovery Pipette, 0.5 - 10µL
P3940-20	BioPette Plus Discovery Pipette, 2 - 20µL
P3940-100	BioPette Plus Discovery Pipette, 10 - 100µL
P3940-200	BioPette Plus Discovery Pipette 20 - 200µL
P3940-1000	BioPette Plus Discovery Pipette, 100 - 1000µL
P3940-5000	BioPette Plus Discovery Pipette, 1000 - 5000µL
P3940-10000	BioPette Plus Discovery Pipette, 1000 - 10000µL
P4508-10	BioPette Plus Discovery Eight-Channel Pipette, 1 - 10µL
P4508-50	BioPette Plus Discovery Eight-Channel Pipette, 5 - 50µL
P4508-200	BioPette Plus Discovery Eight-Channel Pipette, 20 - 200µL
P4508-300	BioPette Plus Discovery Eight-Channel Pipette, 50 - 300µL
P4512-10	BioPette Plus Discovery Twelve-Channel Pipette, 1 - 10µL
P4512-50	BioPette Plus Discovery Twelve-Channel Pipette, 5 - 50µL
P4512-200	BioPette Plus Discovery Twelve-Channel Pipette, 20 - 200µL
P4512-300	BioPette Plus Discovery Twelve-Channel Pipette, 50 - 300µL
P3940-4P	BioPette Plus Discovery 4 Pack Plus, Includes 4 Discovery Pipettes (P3940-10, -20, -200, -1000) One Carousel Stand and 3 Racks of BioFree Tips

Labnet BioFree™ Pipette Tips



Labnet BioFree pipette tips are designed to fit a wide variety of single and multi-channel pipettes. Flexible walls and a series of internal sealing rings ensure a secure fit and minimal force to eject.

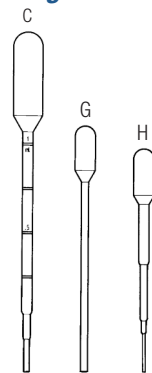
Tips are manufactured from high quality, FDA compliant polypropylene in a clean room environment. Diamond polished, stainless steel molds produce a tip with exceptionally smooth surfaces and extreme accuracy. During manufacturing process, each lot of tips is tested for accuracy and precision. Tips are also carefully inspected for uniformity and manufacturing irregularities.



MODEL	DESCRIPTION
P1000-10	0.5 - 10µL pipette tips, case of 20,000 tips (supplied in 20 x bulk packs of 1,000)
P1000-1000	1000µL pipette tips, case of 5,000 tips (supplied in 5 x bulk packs of 1,000)
P1000-1000-R	1000µL pipette tips, case of 5,000 racked tips (supplied in 5 packs containing 10 x 100 racks)
P1000-10-R	0.5 - 10µL pipette tips case of 4,800 racked tips (supplied in 5 packs containing 10 x 96 racks)
P1000-10X	0.5 - 10µL pipette tips, extended length, case of 20,000 tips (supplied in 20 bulk packs x 1,000)
P1000-10X-R	0.5 - 10µL pipette tips, extended length, case of 19,200 racked tips (supplied in 20 packs containing 10 x 96 racks)
P1000-1200-R	1200µL pipette tips, case of 2,880 racked tips (supplied in 3 packs containing 10 x 96 racks)
P1000-200	200µL pipette tips, case of 20,000 tips (supplied in 20 x bulk packs of 1,000)
P1000-200-R	200µL max, case of 4,800 racked tips (supplied in 5 packs containing 10 x 96 racks)
P1000-300	300µL pipette tips, case of 10,000 tips (supplied as 10 x bulk packs of 1,000)
P1000-300-R	300µL pipette tips, case of 4,800 racked tips (supplied in 5 packs containing 10 x 96 racks)

Transfer Pipettes

Single-use Pasteur pipettes



Our range includes a large variety of transfer pipettes for safe and convenient application when transferring liquids in laboratories.

Disposable Pasteur pipettes are suited for versatile application without any risk of injury or infection from broken glass.

As single-use products, pipettes safely prevent carry over or cross-contamination.

Practical graduations are ideally suited for sample measurement and transfer. Pipettes can be heat-sealed to store residual volumes.

For a sterile transfer of liquids, our range includes sterile options either individually wrapped or 20 pipettes per pack.

Polyethylene material is environmentally neutral thereby ensuring non-toxic disposal.

MODEL	DESCRIPTION	LENGTH	BULB VOL	DROP SIZE	TYPE GRAD
PIP-2020	5 Packs of 20 Pipettes Sterile	156mm	3.5ml	30-45µL	C/1:0.25ml
PIP-2001	100 pieces individually wrapped Sterile	156mm	3.5ml	30-45µL	C/1:0.25ml
PIP-1170	100 pieces - Non Sterile	115mm	1ml	45-55µL	G
PIP-1180	100 pieces - Non Sterile	104mm	1ml	17-22 µL	H



Liquid Nitrogen Cooled Mini Mortar and Pestle Set

Freeze and process tiny tissue samples within a microcentrifuge tube. Stainless steel mortar has a welded fixture to hold a 1.5ml microcentrifuge tube. Mortar is suspended above a stainless steel cavity which holds liquid nitrogen and is nested in a heavily insulated blue polyethylene housing.

- ▶ Permits grinding of smaller amounts of tissue right in a 1.5ml microcentrifuge tube resulting in reduced sample loss and collection time
- ▶ Prevents tube from cracking by eliminating direct contact with liquid nitrogen
- ▶ Includes 5" long stainless steel pestle with 4"W (10.2cm) x .75"D (1.9cm) polyethylene handle
- ▶ Housing overall dimensions: 6.5"D (16.5cm) x 4.5"H (11.4cm); suction feet keep it stable on the workbench
- ▶ Removable, insulated mortar handle, 4"L (10.2cm)



MODEL	DESCRIPTION
372600100	Liquid Nitrogen Cooled Mini Mortar and Pestle Set

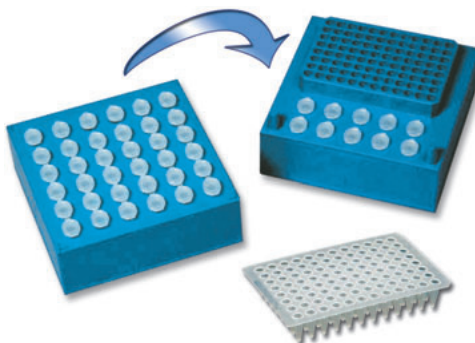
CoolCube

Microtube and Microplate Cooler

CoolCube™ is designed to store samples safely on lab bench without sample degradation due to temperature increase or fluctuation. Constructed of DuraStar (a high strength polymer) and a proprietary gel refrigerant, CoolCube maintains temperature at approximately 0°C for up to four hours.

Simply place the CoolCube in a freezer overnight and it's ready for use, keeping samples cool and safe at the bench, without messy ice buckets or wet tubes.

One side of CoolCube can be used as a convenient PCR workstation, with wells for 10 standard 1.5/2ml microtubes and one 96 well PCR plate or 0.2ml tubes/strips. The other side can be used to hold 36 standard 1.5/2ml microtubes.



MODEL	DESCRIPTION
R1000	CoolCube Microtube and PCR Plate Cooler

My Block™

A personal sized Drybath



Benchtop control of sample temperature has never been this easy or economical. MyBlock Mini fits almost anywhere and can even be used "on-the-go" in cars, boats or wherever a 12 volt power source is available. Its simple touch pad control with digital display is designed for "set and walk away" temperature selection and unrivaled accuracy. At less than 4.4 inches wide, MyBlock

Mini is truly the first personal block incubator.

- ▶ Compact, fits in the palm of your hand
- ▶ Exchangeable blocks, for tubes 0.2 to 50ml
- ▶ Clear hinged cover ensures temperature uniformity

Technical Data:

Temperature range: Ambient +5 to 100°C

Temperature accuracy: ±0.5°C

Temperature increments: 0.1°C

Temperature uniformity: ±0.2°C

Dimensions: 4.4" x 5.9" x 4"/11cm x 15cm x 10cm

MODEL	DESCRIPTION
BSH200	MyBlock Mini Digital Dry Bath with block lifter (Blocks sold separately)
BSH100-02	Block, 40 x 0.2ml or 5 x PCR strips
BSH100-05	Block, 24 x 0.5ml
BSH100-15	Block, 15 x 1.5ml
BSH100-1520	Block, 15 x 1.5 or 2ml
BSH100-150	Block, 4 x 15ml*
BSH100-500	Block, 2 x 50ml*
BSH100-A12V	Vehicle power adapter (sold separately)

*Not compatible with clear cover

MyBlock™ HL Mini Dry Bath



The MyBlock™ HL is the first and only mini heat block featuring a heated lid for protecting samples against unwanted condensation and evaporation. Both the block and lid temperature can be selected independently in increments of 0.1°C, making this MyBlock the ideal choice for the most temperature sensitive applications, including immunoassays, LAMP assays, enzyme reactions and other temperature hyper-sensitive procedures.

- ▶ Heated lid prevents evaporation and condensation
- ▶ Compact, fits in the palm of user's hand
- ▶ Independent temperature control of lid and block
- ▶ Exchangeable blocks for 0.2 to 0.5ml tubes
- ▶ Room temperature to 37°C in just 2 minutes

Specifications:

Temperature range: Ambient +5 to 100°C

Temperature accuracy: ±0.3°C

Temperature increments: 0.1°C

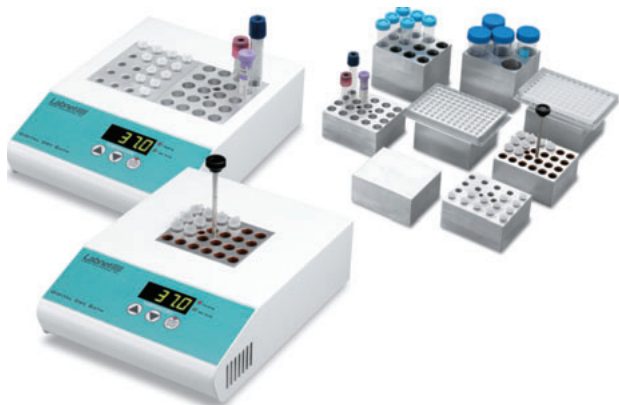
Temperature uniformity: ±0.2°C

Dimensions: 4" x 6" x 4.5"/10.5cm x 15cm x 11.5cm

MODEL	DESCRIPTION
BSH200-HL	MyBlock™ HL Mini Dry Bath with Heated Lid,
Additional Blocks	
BSH100-02	Block, 40 x 0.2ml tubes or 5 PCR strips of 8 tubes each
BSH100-05	Block, 24 x 0.5ml centrifuge tubes



Digital Dry Bath



Digital performance at analog prices

A microprocessor regulates the high wattage heaters to provide precise, accurate control. Exact desired temp is easily set using arrow keys on sloped control panel while values are shown on large digital display. No checking of a thermometer and readjusting temp necessary. User calibration feature allows for easy calibration. An RS232 port is provided for monitoring and recording temperature.

Stainless steel block chamber acts as a heat sink and provides a uniform transfer of heat from heating elements to interchangeable blocks ensuring all samples receive the same temperature treatment, regardless of their position in the block.

- ▶ Stainless steel block chamber
- ▶ Single or dual block units available
- ▶ Nonporous aluminum with anodized surface
- ▶ Thermometer well, required only for calibration purposes

Specifications:

Temperature range: Ambient +5° to 150°C

Temperature resolution: 0.1°C

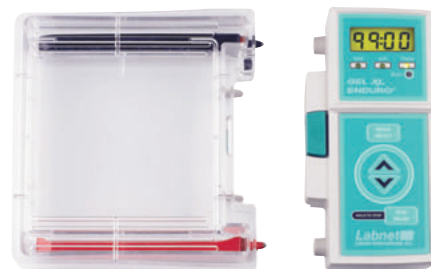
Temperature uniformity: ±0.2°C

Temperature accuracy: ±0.3°C

MODEL	DESCRIPTION
D1100	Digital Dry Bath, single block capacity
D1200	Digital Dry Bath, dual block capacity
D1101	Solid block for machining (no holes)
D1102	Block, 48 x 0.2ml PCR tubes or 6 x 0.2ml
D1102A	Block, 24 x 2ml tubes
D1105	Block, 24 x 0.5ml tubes
D1105A	Block, 24 x 1.5ml tubes
D1106	Block, 35 x 6mm tubes
D1112	Block, 20 x 12mm tubes
D1115-Tall	2 x 15ml centrifuge tubes

ENDURO® Gel XL

Includes all components necessary to cast and run horizontal gels: gel trays, combs, casting stand, gel tank and digital power supply. Migration tank, gel trays and multichannel combs are molded for leak-proof performance and a long service life. Direct connection



of power supply into gel box eliminates need for power leads. Pressing eject button separates the gel box and power supply. Reconnecting is easy – just press two pieces together. Power supply can be set to either constant voltage or constant current with automatic crossover between the two parameters. Parameters are shown on large digital display that is easily visible from a distance.

Three different gel options for the ENDURO® Gel XL: 12.5 x 12cm, 12.5 x 6cm and 6 x 6cm. One larger gel with multiple combs will accommodate up to 112 samples, or run two small gels or four micro gels at the same time. Cassettes protect fragile electrodes from damage and allow for easy replacement.

A magnetic sensor allows current to flow to electrodes only when lid is in place. If lid is removed while system is operating, current is immediately shut down. Lid of the box is vented to dissipate heat produced during electrophoresis. A clear window over the gel platform aids in visualizing the gel while it is running.

Specifications:

Output: voltage/current 10V to 150V/10 to 400 mA

Timer: 0-99 hr or continuous, audible alert

Program memory: Last programmed parameters saved

Electrical universal: 100V- 240V, 50/60 Hz

Overall Dimensions: 10" x 6.7" x 2.5"/24.5cm x 17cm x 6.2cm

Gel Capacity: 1 large (12.5 x 12cm), 2 small (12.5 x 6cm), 4 micro (6 x 6cm)

- ▶ Power-150v/400ma
- ▶ Control-set voltage, amperage and time
- ▶ Flexibility-runs 6 x 6cm to 12.5 x 12cm gels
- ▶ Throughput-up to 112 samples at once
- ▶ Convenience-casting set and combs included

MODEL	DESCRIPTION
E0160	Enduro Gel XL Electrophoresis System, includes gel tank, power supply and standard casting set
E0161	Large Gel Tray Set (12.5 x 12cm), pack of 2
E0162	Small Gel Tray Set (12.5 x 6cm), pack of 2
E0163	Micro Gel Tray Set (6 x 6cm), pack of 4
E0164	Large Comb Set, 14/28 teeth, reversible, pack of 2
E0165	Small Comb Set, 5/8 teeth, reversible, pack of 2
E0166	Micro Casting Set, includes 4 micro gel trays, 2 small combs and a casting stand
E0167	Casting Stand, for all gel sizes
E0168	Standard Casting Set, includes 1 large and 2 small gel trays, 4 large combs and a casting stand

BIOSEB

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My Fuge 12

Mini Centrifuge

- ▶ COMBI-Rotor™ for tubes and strips
- ▶ Twice the capacity of traditional mini centrifuges
- ▶ Near silent operation
- ▶ Starts and stops with opening/closing of lid

Unlike traditional mini centrifuges, the MyFuge 12 eliminates the need to change rotors when switching between microtubes and PCR strips. The included, unique COMBI-Rotor is all that is required for running 12 microtubes and 4 PCR strips simultaneously.

With a fixed speed that produces 2,000 xg, this centrifuge is perfect for quick spin downs. Simply close lid and unit quickly ramps up to 5500 rpm. Open lid, and rotor quickly decelerates for removal of samples. At just 5.5" wide and less than 4.5" tall, MyFuge 12 truly is a personal centrifuge with unmatched capacity and flexibility.

Specifications:

Speed: 5,500 rpm/2,000 xg

Capacity: 12 x 1.5/2ml tubes, 32 x 0.2ml PCR tubes
4 x PCR strips (8 x 0.2ml)

Dimensions: 5.5" x 7.9" x 4.4"/14 cm x 20cm x 11.2cm

MODEL	DESCRIPTION
C1012	MyFUGE Mini Centrifuge, with COMBI-Rotor for microtubes and PCR strips/tubes
C1008-A5-6	Adapters, 0.5ml, pack of 6
C1008-A2-6	Adapters, 0.2ml, pack of 6

My Fuge Mini

Mini Centrifuge

- ▶ Eight position microtube rotor
- ▶ Storage compartment for PCR rotor
- ▶ Near silent operation
- ▶ Starts and stops in just seconds
- ▶ Conserves valuable bench space

Specifications:

Speed: 6,000 rpm/2,000 xg

Dimensions: 4.5" x 5.9" x 4.5", 11.4cm x 15cm x 11cm

Capacity: 8 x 1.5/2ml tubes, 16 x 0.2ml PCR tubes, 2 x 0.2ml PCR strips

MyFUGE™ mini centrifuge is a personal centrifuge that fits in the palm of your hand. Ideal for quick spin downs of microtubes and PCR tubes, MyFuge is extremely easy to use. Simply close lid and rotor instantly reaches 6,000 rpm. Open lid, and rotor quickly decelerates to a stop for removing samples. An increased capacity eight position microtube rotor is included and comes installed. A second rotor for 0.2ml PCR tubes and strips is also included and stored with rotor removal key in a convenient compartment on bottom of the centrifuge. *All include microtube rotor, PCR rotor, 0.5ml and 0.2ml adapter*

MODEL	DESCRIPTION
C1008-B	MyFUGE Mini Centrifuge, blue lid
C1008-C	MyFUGE Mini Centrifuge, clear lid
C1008-G	MyFUGE Mini Centrifuge, neon green lid
C1008-P	MyFUGE Mini Centrifuge, purple lid
C1008-R	MyFUGE Mini Centrifuge, red lid



Spectrafuge™ Mini Centrifuge

- ▶ Supplied with rotors for 1.5/2ml tubes and 0.2ml PCR® strips
- ▶ 6000 rpm/2000 x g
- ▶ On/off switch
- ▶ Durable lid hinge
- ▶ 6" x 6" (153mm x 153mm) footprint
- ▶ Available in five different lid colors



Ideal for quick spin downs and micro filtration. Each unit is supplied with a 6 x 1.5/2ml rotor and adapters for 0.5 and 0.4ml tubes as well as a rotor that will hold 2 x 0.2ml strip tubes, such as those used for thermal cycling. Maximum speed is 6000 rpm, corresponding to 2000 x g in the six place rotor. Each unit has an on/off switch allowing the user to stop motion of rotor before opening centrifuge lid. Lid hinge design incorporates a stainless steel pin for durability. Small footprint allows Spectrafuge Mini Centrifuge to fit on even the most crowded bench, making it a truly personal unit.

The Spectrafuge Mini Centrifuge comes complete with microtube rotor, strip tube rotor, adapters for 0.5ml and 0.4ml tubes. Available in five different translucent lid colors.

Specifications:

Capacity: 6 x 1.5/2ml tubes, 2 x 0.2ml strip tubes

Max speed/g-force: 6000 rpm/2000 x g

Dimensions: 6" x 6" x 4.5"/153mm x 153mm x 102mm

MODEL	DESCRIPTION
C1301-S	Spectrafuge Mini with 1.5/2ml rotor, strip tube rotor, 0.5 and 0.4ml adapters, smoke gray lid
C1301-B	Spectrafuge Mini with 1.5/2ml rotor, strip tube rotor, 0.5 and 0.4ml adapters, blue lid
C1301-T	Spectrafuge Mini with 1.5/2ml rotor, strip tube rotor, 0.5 and 0.4ml adapters, teal lid
C1301-P	Spectrafuge Mini with 1.5/2ml rotor, strip tube rotor, 0.5 and 0.4ml adapters, purple lid
C1301-R	Spectrafuge Mini with 1.5/2ml rotor, strip tube rotor, 0.5 and 0.4ml adapters, red lid





Prism Mini

- ▶ New rotor designs for increased sample capacity
- ▶ Self opening lid enables single-handed operation
- ▶ Quick release rotor hub allows for easy rotor exchange
- ▶ Built-in braking system for rapid sample processing



Reliable and easy-to-use, the Prism Mini is compact and economical, allowing each workstation to be equipped with a "personal" centrifuge. Ideal for quick spins, it can be used for a wide range of molecular biology separations. It's extremely compact with an exceptionally small footprint. Includes two quick release interchangeable rotors, which spin up to 6000 RPM's. The electronic brake and self opening lid allow for quick deceleration to reduce handling time. A maintenance-free drive system and unique design allow for quiet operation and excellent air-flow, to protect temperature-sensitive samples. Cold room compatible.

Self opening lid: Engineered with the lab technician in mind, transparent blue lid allows for a clear view of samples in the rotor. Start and stop of centrifuge can either be controlled by on/off switch or by activating self-opening lid. By depressing lid button, lid automatically opens allowing full access to samples.

Quick release rotors: Prism Mini is supplied with two rotors. An 8 place tube rotor accommodates 1.5/2ml tubes and a 4 place strip rotor accommodates 4 x 0.2mL tube strips or 32 individual PCR tubes. Rotors both have a unique quick release hub design. No tools are required to exchange the rotors, simply snap off and snap on to change between applications.

Rapid braking: Brake system is controlled electronically. Once lid opens, it signals the brake to activate so that the rotor will come to a quick and soft stop without disrupting the samples.

Specifications:

Capacity: 8 place tube rotor and 4 place PCR strip rotor

Maximum speed: 6000 RPM

Maximum RCF: 2000 x G

Dimensions: 5.2" x 5.2" x 4.4" / 13.2cm x 13.2cm x 11.2cm

MODEL	DESCRIPTION
C1801	Prism Mini Centrifuge, 120V
C1205	8 Adapters for 0.5 ml tubes
C1206	8 Adapters for 0.4 ml tubes
C1222	8 Adapters for 0.2 ml tubes,

Mini LabRoller™ Rotator

Economical solution for tube mixing



Compact and sleek design: A small footprint and efficient housing design conserve valuable bench space and make Mini LabRoller Rotator suitable for any size laboratory. It has an ambient operating range of 4°-40°C and will easily fit into most incubators. Lightweight and portable, the unit is easily moved from the bench to a biological or chemical hood. Simple construction allows for easy cleaning and decontamination.

Wide range of motion: The Mini LabRoller Rotator is uniquely designed so that the level of agitation can be adjusted from gentle rolling, through two levels of tumbling, to forceful end over end mixing simply by changing the rotisserie position. When a rotisserie is inserted horizontally (tubes held vertically), an end over end motion is produced. The unit can then be used for simple rotating, or rested on either end to create a tumbling motion. Placing Mini LabRoller on end with power switch will create a more vigorous tumbling motion than resting it on opposite end. A rocking motion is achieved by simply inserting pegs to limit movement of the rotisserie to 20°, 45°, or 60°. Any of the three available rotisseries can be used as a rocking platform. Using supplied rod, rotisseries may be mounted vertically (tubes held horizontally). In all configurations, the speed of the rotisserie is fixed at 24 rpm.

Interchangeable rotisseries hold numerous tube sizes: The Mini LabRoller Rotator is supplied with a rotisserie for 36 x 1.5 or 2ml tubes. Two additional rotisseries are available separately.

Specifications:

Motion/speed: Rotating, rocking, tumbling

Speed: 115V/230V 24/20 rpm

Operating Temperature: 4° to 40°C

MODEL	DESCRIPTION
H5500	Mini LabRoller Rotator with rotisserie for 36x1.5/2ml tubes
H5500-02	Rotisserie for 36x1.5ml tubes
H5500-15	Rotisserie for 10x15ml and 12x5ml tubes
H5500-50	Rotisserie for 6x50ml tubes

BIOSEB

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Revolver 360° Sample Mixer



Superior sample mixing

- ▶ Complete 360° rotation
- ▶ Adjustable 0-90° mixing angle

Accepts a variety of tube sizes and mixes them horizontally, vertically, or any position in between. Changing mixing angle is easy simply turn rotisserie. No tools required.

Revolver with optional H5600-15 rotisserie

Interchangeable rotisseries accept tubes from 1.5ml to 50ml. Each rotisserie is split into two halves. Each half can be exchanged to mix more than one tube type at the same time. Each half can be rotated independently from a center point on shaft. Placing the halves in line with shaft produces an end over end tumbling motion, similar to that used to mix blood tubes. Rotating rotisserie at a right angle to the shaft produces a gentle mixing motion, ideal for delicate samples. Rotation speed is fixed at 18 rpm.

Revolver with optional H5600-50 rotisserie

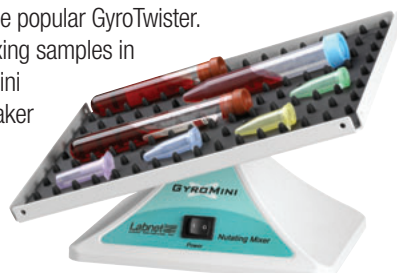


Can be used in ambient temperatures from +4°C to 65°C. Ideal for a variety of laboratory settings such as molecular biology, biochemistry, clinical and histochemistry. Small enough to fit on a crowded bench, the rotator is easily moved where it is needed. Molded housing and unique rotisserie design makes the Revolver easy to clean and decontaminate. A 36 x 1.5/2ml rotisserie is supplied with Revolver. Other configurations are available.

MODEL	DESCRIPTION
H5600	Revolver Tube Mixer w/rotisserie for 36 x 1.5 tubes
H5600-02	Rotisserie for 36 x 1.5/2ml tubes (included with unit)
H5600-15	Rotisserie for 10 x 15ml tubes and 16 x 5/7ml tubes
H5600-50	Rotisserie for 6 x 50ml tubes

GyroMini Nutating Mixer

GyroMini is a smaller version of the popular GyroTwister. Its small size makes it ideal for mixing samples in blood and centrifuge tubes. GyroMini combines motions of an orbital shaker and a rocker to produce a three dimensional action. The result is a thorough yet gentle mixing without foaming. Both speed and tilt angle of this small shaker are fixed to provide the optimal level of agitation for mixing samples in small containers. GyroMini is supplied with a dimpled mat for holding tubes firmly in place. For temperature sensitive samples, the GyroMini can be used in a cold room.



Specifications:

Speed range: 24 rpm

Motion/ Pitch: 3-D/fixed 20°

Maximum load: 1.75 lb/0.8 kg

Ambient operating range: +4° to 65°C

Dimensions: 9.75" x 7.5" x 7"/24.8cm x 19.1cm x 17.8cm

MODEL	DESCRIPTION
S0500	GyroMini Nutating Mixer with dimpled rubber mat.

Benchrocker



With adjustable speeds and tilt angles, user can set both parameters to match vessel size and volume of liquid being mixed. User can adjust both parameters to match vessel size and volume of liquid being mixed, yielding optimum results. Rocking speed and tilt angle are both easily adjustable in seconds. At low speeds and minimal tilt angles, both models (2D for "see-saw" motion or 3D for "gyratory" motion) provide a gentle wave effect for non-foaming mixing, as is required for most blot washing and gel work. When set to higher speeds and more extreme tilt angles, they produce aggressive agitation for vigorous sample mixing. Dual platform option expands workspace.

BenchRocker 2D and 3D can accept stackable platforms (2.75" clearance). All platform mats are autoclavable. Both models have maintenance free brushless motors and are safe for use in cold rooms and incubators.

MODEL	DESCRIPTION
BR2000	BenchRocker 2D variable speed rocker with flat mat platform
BR2000-STACK	Optional stacking platform (14"x12") with flat mat
BR3D2300	BenchRocker 3D variable speed rocker with dimpled and flat mats
BR1000-STACK	Optional stacking platform (12"x12") with flat mat
BR1000-STACK-D	Optional stacking platform (12"x12") with dimpled mat
BR0718	LaBungee™ elastic tie downs with hooks, pack of 4

Benchmixer



BenchMixer™ sets the standard in vortex mixing. With advanced Q-Drive™ technology, BenchMixer™ provides smooth instant vortexing of even the largest sample sizes, including full 50ml tubes. Unique counter balance system creates maximum vortexing action, while minimizing noise and excessive vibration resulting in quieter, more efficient and longer lasting operation.

Other features include: "no-walk" suction feet, cold room/incubator compatibility and spill-proof electronic controls.

- ▶ Powerful Motor for instant vortexing
- ▶ Q-Drive™ Dynamic Balance System
- ▶ Touch or Continuous Operation
- ▶ Variable Speed Control from 200 to 3200 rpm

MODEL	DESCRIPTION
BV1000	BenchMixer Vortex Mixer
BV1000-FLAT	Optional 3" flat head
BV1000-COMBO	Optional combination head for tubes and microplates
	Holds 66 tubes (38 x 1.5ml and 28x 0.5ml) or one microplate



Vortex Mixer VX-200

Unique CombiCup™ head has a nonslip surface and accepts single or multiple tubes of various sizes



Mix and vortex any size tube

Variable speed Vortex Mixer VX-200 provides fast, efficient mixing with minimal vibration. Features a true circular orbit that allows for even distribution of vortexing across the entire speed range. CombiCup™ head, supplied as standard, accepts many different tube sizes. A full range of accessories is available to accommodate most common laboratory tubes and plates. Continuously variable speed makes the Vortex Mixer VX-200 useful for a variety of applications, from gentle mixing to resuspending pellets. The unit has a circular orbit, rather than elliptical allowing a vortexing motion to be achieved even at low speeds. The Vortex Mixer VX-200 can be operated in either "touch" or continuous mode. When in "touch" mode, the motion is activated by depressing sample head and stopped by removing pressure. If the unit is set in the "on" position, the Vortex Mixer VX-200 will operate continuously until turned off. CombiCup™ head can be used with a single tube or a whole handful. Unique over molding technology used in the manufacture of CombiCup™ provides a sturdy plastic core surrounded with nonslip TPE. Optional heads available.

- ▶ Powerful, reliable motor
- ▶ Optimized counter balance system minimizes vibration
- ▶ Circular orbit for effective vortexing at any speed
- ▶ Standard CombiCup™ accepts a variety of tube sizes
- ▶ Full range of accessories

Specifications:

Speed range: 0-3, 400 rpm Vortex a single tube or a handful with the operating modes touch or continuous

Ambient operating range: 4° to 65°C Nonslip TPE

MODEL	DESCRIPTION
S0200	Vortex Mixer

Optional Heads

S0200-21	24 x 1.5/2ml tubes, 24 x 0.5ml tubes and 32 x 0.2ml tubes (or 4 PCR strips)
S0200-22	1 microplate or 64 x 0.2ml tubes or 8 PCR strips
S0200-23	8 x 15ml and 8 x 12/13mm diameter tubes continuously
S0200-24	6 x 50ml tubes adjustable variable
S0200-25	12 x 1.5/2ml tubes, held horizontally
S0200-26	4 x 15ml tubes, held horizontally
S0200-27	2 x 50ml tubes, held horizontally

Orbit™ 300 Multipurpose Vortexer



Three interchangeable platforms (available separately) accommodate a variety of sample containers to make the Orbit 300 a truly multipurpose shaker. Flat platform, covered with a nonslip rubber mat, holds plates, dishes, boxes, etc. Microplate platform will accommodate up to four microplates. Remaining platform has spring loaded retaining bars that adjust to hold flasks, bottles, racks and other containers in place.

Time and speed are set and displayed digitally. Values are shown on the large, three digit LED. Broad speed range allows the Orbit 300 to be used for gentle mixing as well as vigorous agitation.

Shaker housing is constructed of heavy gauge, coated steel to reduce motor noise and lend stability to the unit. Compact shaker can be used in temperature controlled environments making it ideal for cold room or incubator use.

Specifications:

Speed range: 100-1200 rpm

Timer: 0 to 99 minutes or continuous

Motion/orbit size: horizontally circular, 3mm

Maximum load: 12.3 lb/5.6 kg

Ambient operating range: +4° to 65°C

MODEL	DESCRIPTION
S2030-300	Orbit 300 Digital Multipurpose Shaker, base only
S2030-10	Platform for four microplates
S2030-12	Flat platform (30 x 30cm) with nonslip rubber mat
S2030-13	Spring loaded platform for flasks, bottles, etc



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Orbi-Shaker™

- ▶ Perfectly circular 19mm orbit for aeration and mixing
- ▶ Digital speed control up to 300 rpm

The Orbi-ShakerJR is a space-saving shaker, complete with a 9.5" x 8" non slip, rubber coated platform that is ideal for tissue culture flasks, petri dishes and staining trays. Additional platforms are also available for the Orbi-Shaker JR, including the convenient MAGIC Clamp™ platform for use with Erlenmeyer flasks and test tube racks. The unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes.

Technical Data:

Speed range: 50 to 300 rpm

Speed increment: 10 rpm

Orbit: 19mm (3/4")

Maximum capacity: 4 x 1L or 4 kg

Standard platform dimensions: 9.5" x 8"/24cm x 20cm

Dimensions: 11" x 10.7" x 5"/28cm x 27cm x 13cm

Operating Temperature: 4 to 650°C



Multi-Therm™



Cool – Heat – Shake

- ▶ Temperature control from 0° to 100°C
- ▶ Exchangeable blocks for tube sizes 0.2 to 50ml
- ▶ Precision contoured wells for uniform thermal transfer
- ▶ Two models: heat/cool or heat only

Technical Data:

Temperature range (HC): Ambient 20° to 100°C

Temperature range (H): Ambient +5° to 100°C

Heating ramp rate: 5.0°C/min.

Cooling ramp rate: 2.5°C/min. (HC only)

Temperature accuracy: ±1.0°C

Speed range: 200 to 1500 rpm, or "off"

Motion/orbit: Horizontally circular/2mm

Capacity: Per selected block

Dimensions: 8.25" x 11.5" x 8.25"/21cm x 29cm x 21cm

Multi-Therm™ shaker is a temperature controlled vortexer, useful for a variety of molecular biology applications including Denaturation of DNA, RNA and proteins, lipid extractions, reverse transcription, yeast and bacteria cultivation, DNA/plasmid isolation, restriction digests, gentle thawing of biological materials.

Despite its modest 8"x11" footprint, all popular tubes and plates are compatible, including as many as six 50ml tubes. Speed, time and temperature settings are continuously visible on the LCD, simultaneously showing both actual and selected values. Integral over-temperature control ensures long life, safety and sample integrity.

MODEL	DESCRIPTION
BT300	Orbi-Shaker JR
H1000-MR	Magic Clamp™ universal platform (9.5x8") for flasks and tube racks (clamps sold separately)
H1000-MR-500	Clamp for Magic Clamp platform, 500ml (max. 5)
H1000-MR-250	Clamp for Magic Clamp platform, 250ml (max. 8)
H1000-MR-125	Clamp for Magic Clamp platform, 125ml (max. 12)
H1000-MR-50	Clamp for Magic Clamp platform, 50ml
H1000-MR-1550	Tube rack for Magic Clamp platform, 12x50 and 21x15ml conical tubes (max. 1)
H1000-P-500	Dedicated platform with 5 x 500ml Erlenmeyer flask dampers attached
H1000-P-250	Dedicated platform with 8 x 250ml Erlenmeyer flask dampers attached
H1000-P-125	Dedicated platform with 12 x 125ml Erlenmeyer flask dampers attached
H1000-P-MP	Dedicated platform, 4 x microplates (standard or deepwell)
H1000-P-SP	Spring rack platform, for uncommon vessels and containers

MODEL	DESCRIPTION
H5000-HC	MultiTherm Shaker with heating and cooling
H5000-H	MultiTherm Shaker with heating only

Blocks separately:

H5000-02	Block, 96 x 0.2ml or one PCR plate
H5000-05	Block, 54 x 0.5ml
H5000-CMB	Block, combination 15 x 0.5ml and 20 x 1.5ml
H5000-15	Block, 35 x 1.5ml
H5000-20	Block, 35 x 2ml
H5000-12*	Block, 24 x 12mm (200 to 1200 rpm/Ambient -10° to 100°C)
H5000-150*	Block, 12 x 15ml (200 to 750 rpm/Ambient -10° to 100°C)
H5000-500*	Block, 6 x 50ml (200 to 750 rpm/Ambient -10° to 100°C)

*Note: The larger mass of this block results in a reduced speed and temperature range.

Incu-Shaker Mini



- ▶ Exceptional temperature uniformity
- ▶ Extremely compact, just 11" wide
- ▶ Exchange flask clamps in one second with the MAGIC CLAMP™ magnetic system

Incu-Shaker™ Mini is the most compact shaking incubator in its class. Despite the remarkably small footprint, a large 11.5" x 9.5" work space accepts several platforms for use with a variety of flasks, tubes and other common vessels.

Standard platform (included) features a non-slip, rubber coated surface, ideal for tissue culture flasks, petri dishes and staining trays.

Convenient MAGIC CLAMP™ platform is also available for use with Erlenmeyer flasks and test tube racks. Unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes.

Temperature, shaking speed and run time are displayed on large LED control panel located on front of unit. Integral microprocessor includes a constant monitoring system that verifies and maintains accuracy through duration of program. Sophisticated over-temperature and over-speed controls ensure long life, safety and sample integrity.

Applications: Bacterial suspensions, staining/destaining, tissue/cell culture, gel washing, solubility studies, general mixing, diagnostics, general incubation

Technical Data:

Temperature range: Ambient +5 to 60°C (Increments of 0.1°C)

Temperature uniformity: ±0.25 %

Temperature accuracy: ±0.1 %

Shaking speed range: 30 to 300 rpm (Increments of 1 rpm)

Shaking orbit: 19mm (3/4")

Platform dimensions: 9.5" x 11.5" / 23.5cm x 29.2cm

Exterior dimensions: 11" x 15.7" x 10.5"
(lid open, height = 25")
28cm x 40cm x 27cm
(lid open, height = 63cm)

MODEL	DESCRIPTION
H1000-M	Incu-Shaker™ Mini Shaking Incubator
H1000-MR	Magic Clamp™ universal platform for flasks and tube racks (clamps sold separately)
H1000-MR-500	Clamp for Magic Clamp platform, 500ml (max. 5)
H1000-MR-250	Clamp for Magic Clamp platform, 250ml (max. 8)
H1000-MR-125	Clamp for Magic Clamp platform, 125ml (max. 12)
H1000-MR-50	Clamp for Magic Clamp platform, 50ml
H1000-MR-1550	Tube rack for Magic Clamp platform, 12x50 and 21x15ml conical tubes (max. 1)
H1000-P-500	Dedicated platform with 5 x 500ml Erlenmeyer flask clamps attached
H1000-P-250	Dedicated platform with 8 x 250ml Erlenmeyer flask clamps attached
H1000-P-125	Dedicated platform with 12 x 125ml Erlenmeyer flask clamps attached
H1000-P-MP	Dedicated platform, 4 x microplates (standard or deepwell)
H1000-P-SP	Spring rack platform, for uncommon vessels and containers

Enduro MiniMix

Perfect for western blots



Labnet's Enduro MiniMix combines motions of an orbital shaker and a rocker to produce three dimensional action. The benefit of this type of motion is that it is both gentle and thorough.

The pitch and speed of the Enduro MiniMix are fixed to provide the optimal conditions for processing western blots and staining gels. Tilt angle is large enough to provide thorough distribution of solutions, yet small enough to keep the center of blot from drying out. Minimal amounts of solution can be used, conserving valuable probes and antibodies.

Mixer is supplied with a non-slip rubber mat to help keep boxes in place on platform. Housing and platform are easy to clean and decontaminate when needed. For temperature controlled incubations, the Enduro MiniMix may be used in a cold room or an incubator. Lightweight and compact and easily moved where needed.

Available in two sizes: Small boxes have a capacity for 3-5ml of solution and are perfect for mini protein gels, such as those used in the Enduro Mini PAGE System; Large boxes will hold 6-10ml and are sized for larger mini protein gels. Boxes are acrylic and feature a hinged lid with a positive catch. Supplied in packages of 10.

- ▶ Designed for processing blots and staining gels
- ▶ Optimal fixed speed and tilt
- ▶ Three dimensional motion
- ▶ Enduro Blot boxes are perfect for protein gels

Specifications:

Speed: 115V/230V, 18 rpm/20 rpm

Motion: 3D, nutating

Angle: 5°

Ambient operating range: +4°-65°C

Dimensions: 8" x 7" x 4.5"/20.3cm x 17.8cm x 10.5cm

MODEL	DESCRIPTION
S0600	Enduro MiniMix 3D Shaker with 20 x 16.5cm tray and non-slip rubber mat
E2110-BBS	Enduro Blot box, 9.1 x 6.6cm, 3-5ml capacity, 10/pack
E2110-BBL	Enduro Blot box, 11.7 x 8.9cm, 6-10ml capacity, 10/pack

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BeadBug™ Microtube Homogenizer



- ▶ Extremely powerful mixing for lysis, grinding or homogenization
- ▶ Faster and more effective than tissue grinders
- ▶ Mix 1, 2 or 3 tubes simultaneously
- ▶ Extremely compact, less than 7" wide
- ▶ Eliminates cross contamination associated with hand held homogenizers

BeadBug™ is a high energy benchtop homogenizer that sets the performance standard for personal sized cell disruption and lysis instruments.

Simultaneous homogenization of up to 3 samples takes place (often within 45 seconds) inside disposable 2ml screw cap microtubes. Optimized mixing motion causes rapid cell disruption through constant high velocity impact from hardened micro-beads chosen specifically for your sample type.

Developed for samples too tough to be homogenized in a common lab vortexer, BeadBug provides a convenient and economical alternative to traditional homogenizers. With up to three tube capacity and a foot print of just 7" x 8", BeadBug is the ideal homogenizing instrument for low to medium throughput laboratories.

Specifications:

Speed range: 2,700 to 4,000rpm

Capacity: 3 x 2ml (screw cap/non-skirted)

Timer: 3 sec. to 3 min.

Operating temperature range: +4°C to +65°C

Dimensions: 6.9" x 8.3" x 5.3"/17cm x 21cm x 13.5cm

MODEL	DESCRIPTION
D1030	BeadBug Microtube Homogenizer

Prefilled Tube Kits, non-skirted with caps

MODEL	DESCRIPTION	BEAD SIZE	QTY
D1031-01	Standard Glass Beads	Ø: 0.1mm	50/pk
D1031-05	Standard Glass Beads	Ø: 0.5mm	50/pk
D1031-10	Standard Glass Beads	Ø: 1mm	50/pk
D1032-01	Triple-Pure High Impact Zirconium Beads	Ø: 0.1mm	50/pk
D1032-05	Triple-Pure High Impact Zirconium Beads	Ø: 0.5mm	50/pk
D1032-10	Triple-Pure High Impact Zirconium Beads	Ø: 1mm	50/pk
D1032-15	Triple-Pure High Impact Zirconium Beads	Ø: 1.5mm	50/pk
D1032-30	Triple-Pure High Impact Zirconium Beads	Ø: 3mm	50/pk
D1033-28	Stainless Steel (Acid-Washed) Beads	Ø: 2.8mm	50/pk
D1032-SK	Triple-Pure High Impact Zirconium Beads		10 each
Starter Kit, Ø: 0.1, 0.5, 1, 1.5 and 3mm			

Bullet Blender® Homogenizer

Aim for higher efficiency, superior results and greater value

Versatile Bullet Blender is ideal for a wide range of laboratory tasks, including disrupting, homogenizing, dissociating or lysing cells, tissues and plant matter. High quality instrument achieves consistent results while saving time, effort and money.



- ▶ Easy operation - simply add samples, beads and buffer to tubes and place in Bullet Blender. Select run time and speed, close the lid and press "start". No clamp plates or locking rings to fiddle with.
- ▶ High-efficiency technology - using patented striking technology, "bullets" in the Bullet Blender repeatedly strike tubes resulting in vigorous agitation of samples and collisions between samples and beads inside tubes.
- ▶ High yields - delivers high efficiency under microprocessor-controlled conditions for consistent results. Due to unique design, minimal heat preserves sample quality.
- ▶ High throughput - runs up to 24 samples in parallel, so work is done in a faster, easier manner. No probes to clean between samples so there is no cross contamination.
- ▶ Best value - more affordable due to a simple, reliable design. Standard tube compatibility keeps operating costs low.
- ▶ Choose from a variety of beads including RNase free, covering a wide array of applications and samples, packaged in bulk or pre-loaded in tubes. Bullet Blender comes with a starter pack sampling of beads.*

Specifications:

Capacity: Process up to 24 samples in 1.5 or 2ml tubes, up to 12 samples in 5ml tubes, or up to 8 samples in 50ml tubes

Tubes: Uses commonly available tubes

Environment: Operational in constant 4°C to 50°C. Use in refrigerator/cold room or an incubator

Air cooling option: Keeps samples near ambient temperatures

4C cooling option: Use dry ice to keep samples near 4C while processing

Speed control: Adjustable to handle gentle vortexing to homogenization of bones

Dimensions: Most models have a small footprint:

9" W x 10" D/22cm x 25cm

Largest model is 13" W x 14" D/33cm x 35cm

MODEL	DESCRIPTION	SAMPLE CAPACITY	TUBE/SAMPLE SIZE
BB-24X	Bullet Blender	1-24	1.5ml tubes (up to 0.3g)
BBY-24M	Bullet Blender Storm (Air cooling, accepts snap-cap or screw-cap tubes, bigger motor for tough samples)	1-24	1.5ml tubes (up to 0.3g)*
BB24-AU	Bullet Blender Gold (4C cooling, accepts snap-cap or screw-cap tubes, bigger motor for tough samples)	1-24	1.5ml tubes (up to 0.3g)*
BBY-5M	Bullet Blender 5 Storm (Air cooling, bigger motor for tough samples)	1-12	5ml tubes (0.1g - 1.0g)
BB50-DX	Bullet Blender 50-DX (Air cooling)	1-8	50ml tubes (0.1g - 13.5g)
BB50-AU	Bullet Blender 50 Gold (4C cooling)	1-8	50ml tubes (0.1g - 3.5g)

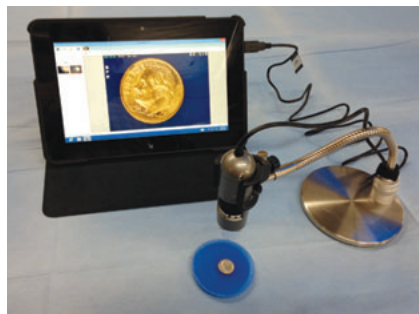
Screw cap tubes also available

*Call for bead and bead kit pricing

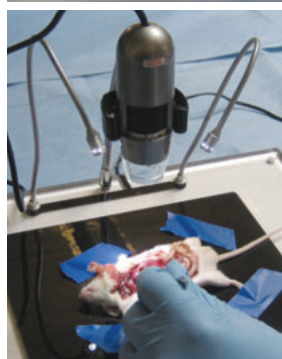


Portable Digital Microscope/Camera

Equip your surgery platform with a portable digital microscope/camera



Capture a photo, real time video, time-lapsed video, project image.



Ideal for small rodent surgery, demonstrations, dissections and much more!

Features a 2.0 USB connection eliminating the need for interface cards or expensive software. Easy and convenient to load and use DinoCapture application software and user's manual are included for collection and processing of photos.

- ▶ Resolution: 640 x 480 pixels
- ▶ Magnification: 10~200x continuous
- ▶ Sensor: 1/4" Color CMOS
- ▶ Video frame rate: up to 30 frame-per second
- ▶ Illumination: built-in 8 white LEDs
- ▶ CD Content: DinoCapture application software, users manual
- ▶ Automatic or manual color balance and brightness control

System Requirements:

- ▶ Compatible Windows 2000/XP, Vista and most MAC OS
- ▶ Intel Pentium III 1 GHz processor or faster
- ▶ 256 MB RAM
- ▶ CD-ROM drive
- ▶ 16-bit color display monitor or higher
- ▶ Available hi-speed USB 2.0 port

MODEL	DESCRIPTION
PDMC	Digital Microscope/Camera includes mounting bracket (DMCB), DinoCapture software, USB 2.0 extension
DMCB	Bracket for Microscope/Camera (PDMC)
TSPCK	Thermo Surgery Platform/Camera Kit includes thermo surgery platform with gel-pads, digital microscope/camera, mounting bracket (DMCB), DinoCapture software, USB 2.0 extension, gel pad reactivation unit
DMIK	Digital Microscope/Camera Imaging Kit includes digital microscope/camera (Dino Lite), digital microscope stand with bracket and Latitude 10 with docking station and stylus pen
SSPCK	Standard Surgery Platform/Camera Kit includes standard surgery platform, digital microscope/camera, mounting bracket (DMCB), DinoCapture software, USB 2.0 extension

Magnifying Loupes

Features:

- ▶ Set and Forget™ optics
- ▶ Dual hinge design
- ▶ Locking interpupillary knob
- ▶ Double locking convergence angle



Benefits:

- ▶ Optics are quickly and easily locked into place
- ▶ Allows for easy flip up of optics
- ▶ Allows for secure adjustments of your settings
- ▶ Provides stable alignment of optics

Choosing the right loupe: follow these two steps for a perfect match:

Step 1: Choose magnification. Start with the lowest power you need. Most professionals begin using loupes with a magnification power of 2.5X. Remember, as the magnification increases, the field of view, focal range and light transmission decreases.

Step 2: Choose working distance. All loupes are pre-set to focus at a certain distance and objects will remain in focus within a range of several inches. Loupes are available in 4 working distances: Short (10-13"), regular (12-16"), long (14-18") and extra long (16-20").

The 250 Series (2.5x) is the ideal general purpose optic. The 250 series optic will provide a magnified view of approximately 2.5 times the object size. Most first time loupe users choose this magnification.

The 300 Series (3x) is an ideal optic for those who have worked with a 2.5x magnification power optic and want an increase in power. The 300 series optic provides a view of the entire area of focus and has an excellent depth of focus.

The 350 Series (3.5x) is the highest magnification optic available in a compound lens design. The 350 series optic is an excellent choice for dentists and surgeons requiring high magnification in a lightweight loupe. Kit contains: head strap, screwdriver, storage case, cleaning cloth, solution, magnification loupe and frame.

MODEL	MAGNIFICATION	WORKING DISTANCE	FIELD OF VIEW	COLOR
LP-5000	2.5x	10"-13" (S)	3.5" (S)	Red
LP-5001	2.5x	12"-16" (R)	3.8" (R)	Red
LP-5002	2.5x	14"-18" (L)	4.3" (L)	Red
LP-5003	2.5x	16"-20" (XL)	4.6" (XL)	Red
LP-5011	2.5x	10"-13" (S)	3.5" (S)	Black
LP-5012	2.5x	12"-16" (R)	3.8" (R)	Black
LP-5013	2.5x	14"-18" (L)	4.3" (L)	Black
LP-5014	2.5x	16"-20" (XL)	4.6" (XL)	Black
LP-5004	3x	10"-13" (S)	2.8" (S)	Red
LP-5005	3x	13"-16" (R)	2.5" (R)	Red
LP-5006	3x	16"-21" (L)	3.5" (L)	Red
LP-5007	3x	18"-22" (XL)	4" (XL)	Red
LP-5015	3x	10"-13" (S)	2.8" (S)	Black
LP-5016	3x	13"-16" (R)	2.5" (R)	Black
LP-5017	3x	16"-21" (L)	3.5" (L)	Black
LP-5018	3x	18"-22" (XL)	4" (XL)	Black

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New! Zoom Stereomicroscopes

Provides sharp 3-D imaging

ZM180 Series Zoom

Stereomicroscopes offer smooth, continuous zoom magnification, through the entire 7x - 45x range. Available with a variety of stand and illumination choices; the standard optical configurations give 7 - 45x with 10x eyepieces. However, the magnification range can vary from 2.1x to 225x depending on the combination of eyepieces and auxiliary objective lenses selected. Available with a wide variety optical, stand and illumination options. For temperature sensitive work such as fertility or insemination applications, models with cool-burning fluorescent bottom illumination to eliminate overheating specimens is recommended.



- ▶ Continuous Zoom Binocular or Trinocular Heads, 7 - 45x
- ▶ Parfocal zoom stays in focus over entire zoom range
- ▶ Superior optical design with crisp resolution
- ▶ Heads rotate 360°, and lock in-place with thumb screws
- ▶ Eyepieces are inclined at a 45° angle for viewing comfort
- ▶ Dual-Diopter, independent focus controls on each eyetube
- ▶ Interpupillary distance adjustment of 55mm to 75mm
- ▶ Working distance of 108mm (with standard optical configuration)
- ▶ All metal head, stand and body construction

ZM180 Series options and accessories:

- ▶ Extra widefield eyepieces: 10x, 15x, 20x and 25x
- ▶ Auxiliary objectives: 0.3x, 0.5x, 0.75x, 1.5x and 2x
- ▶ Magnification range: 2.1x to 225x depending on optics selected
- ▶ Stand selection: solid arm or pillar/post mount
- ▶ Illumination choices: halogen, fluorescent and fiber optics
- ▶ Camera adapters for C-Mount video or SLR cameras
- ▶ Frosted, clear and black/white stage plates

MODEL	DESCRIPTION	STAND	ILLUMINATION
ZM181	Binocular	Pillar/Post	None
ZM181T	Trinocular	Pillar/Post	None
ZM181HF	Binocular	Pillar/Post	Halogen (top) Fluorescent (bottom)
ZM181HFT	Trinocular	Pillar/Post	Halogen (top) Fluorescent (bottom)
ZM184HF	Binocular	Extender Arm	Halogen (top) Fluorescent (bottom)
ZM184HFT	Trinocular	Extender Arm	Halogen (top) Fluorescent (bottom)

Options and Accessories

D4-1002	15x Widefield Eyepiece
D4-1003	20x Widefield Eyepiece
D4-1004	25x Widefield Eyepiece
D4-2001	2x Auxiliary Objective
D4-2003	0.75x Auxiliary Objective
D4-2004	0.5x Auxiliary Objective
D4-2005	0.3x Auxiliary Objective
D4-8020	Video Adapter with C-Mount, adjustable
D4-8010	SLR Camera Adapter (requires T-Mount)

Lab Light



Unique magnetic base/puck system holds lab light firmly on base in any location. Magnetic base/puck system allows lab light to attach to non-metallic surfaces. Plug lab light into the optional on/off plug switch for easy on/off operation.

- ▶ Ultra bright LED on 10" flex arm
- ▶ Ultra strong magnetic base/puck system to anchor light on non-metallic surfaces.
- ▶ Attaches directly to metallic surfaces
- ▶ Universal power supply (110-220 V)
- ▶ Small base (1.625" dia.)

LLSW



LL13



MODEL DESCRIPTION

LL13	Lab Light
LLSW	On/Off Plug Switch

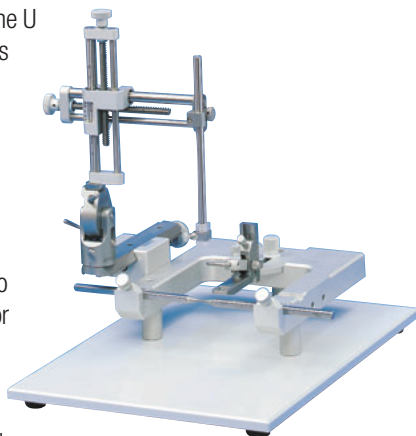


Lab Standard™ Stereotaxic Instrument

Single and dual manipulator models

- Read from the open end of the U
- Large, easy-to-read numerals on scale
- Precise alignment to 0.1mm resolution
- Triple-start lead screws for fastest positioning possible
- Absolute lock at 90°

Universal joint allows scientist to probe in either anterior-posterior or lateral-medial planes. Manipulator arm may be swiveled out of the way for convenience in installing animal, or for performing a procedure, and then reliably returned to the same point. Available with 18° or 45° (non-puncture ear bars).



MODEL	DESCRIPTION
51600	Lab Standard™ 18° Ear bar
51650	Lab Standard™ 45° Ear bar
51603	Dual Lab Standard™ 18°
51653	Dual Lab Standard™ 45°

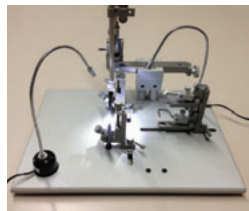
Standard Stereotaxic

Like the classic Lab Standard™, the Standard Stereotaxic Instrument has larger laser engraved vernier scales (accurate to 100µm), 80mm of ventral-dorsal, medial-lateral and anterior-posterior travel, absolute lock at 90° ventral-dorsal and brass-bushings for electrical grounding. Available as a digital or motorized model.



- Revolutionary vertically-adjusting ear and nose bar posts
- Revolutionary horizontally-adjusting ear and nose bar posts
- Designed for both rats and mice all on the same base
- No U-frame, maximizes operating space
- Traditional and non-traumatic rat ear bar
- Includes innovative mouse ear bars, mouse and rat nose adaptor, and dual tip ear bars with tramatic (18°) and non-tramatic (45°) ear bars.

MODEL	DESCRIPTION
51500	Standard Stereotaxic, rat and mouse
51500D	Digital Standard Stereotaxic, rat and mouse
51500M	Motorized Standard Stereotaxic, rat and mouse
51501	Standard Stereotaxic, rat and mouse (no manipulator arm)
51503	Dual Standard Stereotaxic, rat and mouse
51503D	Digital Dual Standard Stereotaxic, rat and mouse



See page 66 for
Stereotaxic Light

Cunningham™ Mouse and Neonatal Rat Adaptor

The original Cunningham™ Mouse and Neonatal Rat Adaptor fits Stoelting Lab Standard™ and most other brands of stereotaxics. It employs light, tapered Delrin® ear bars, to facilitate surgery on mice and rat pups.

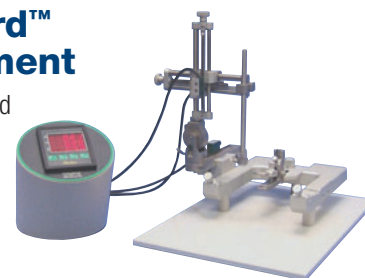


The Cunningham™ Mouse and Neonatal Rat Adaptor features an increased overall length to accommodate larger animals, and new specialized jaw holder cuffs, providing an alternative non-invasive means of securing the animal's head in the stereotaxic stage. Fully compatible with masks for gas anesthesia.

MODEL	DESCRIPTION
51625	Neonatal Rat Adaptor

Digital Lab Standard™ Stereotaxic Instrument

Digital Lab Standard™ features a sealed electronic sensor, highly immune to interference and environmental conditions. Movements are monitored by a large, easy-to-read LED display module and are accurate to 10µL.



A zeroing function allows the user to target specific coordinates in the brain for injection, implantation, etc. Calculation of distance measurements via the vernier scales is thus no longer necessary...saving the user valuable time and improving accuracy.

MODEL	DESCRIPTION
51900	Digital Lab Standard™ 18° Ear Bars
51950	Digital Lab Standard™ 45° Ear Bars
51903	Dual Digital 18° Ear Bars
51953	Dual Digital 45° Ear Bars

Digital Just For Mice™ Stereotaxic Instrument

Two stereotaxic instruments in one

Stoelting Just For Mice™ Stereotaxic Instrument was developed for the expanding growth of research being conducted with knock-out and transgenic mice. It allows the user to perform surgical procedures on two mice at one time. Precision alignment is accurate to 10 microns in all directions.



Stoelting has created two stereotaxic instruments on a single base with ear bar slots on both sides. A manipulator arm controls medio-lateral and vertical positioning via lead screws, and antero-posterior movement via dovetail slide, with 80mm of travel possible in each direction, allowing access to both ear bar locations. Ear bars may be independently adjusted in height to level the skull.

Delrin ear bars with tapered points, specialized jaw holder cuffs, or rubber pads are included.

MODEL	DESCRIPTION
51725-D	Digital Just For Mice™
	Non-digital Just For Mice™

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Web: www.bioseb.com



MouseOx® Plus Pulse Oximeter

Non invasive, used with:

- ▶ Anesthetized and conscious subjects
- ▶ Animal sizes neonate to adult mice, rats and other small lab animals
- ▶ Mice, rats and other small laboratory animals with pulse rate from 90-900 BPM such as marmosets, rabbits, guinea pigs, hamsters, voles, tree shrews, ferrets, opossum, rabbits

Provides measurements for arterial oxygen saturation, heart rate, breath rate, temperature*, pulse distention, breath distention, activity (optional).



MODEL	DESCRIPTION
SLS-015000	Mouse Ox Plus Base System, analog output for heart rate for anesthetized monitoring ONLY, USB, universal cable, power supply and 2 sensors

Additional Options

SLS-015010	Temperature measurement: includes 6' temperature probe and software
SLS-015007	Premium Recording Module (last 2 min. chart), recording and data analysis capabilities
SLS-015002	Conscious Monitoring Module 0 (must have SLS-015000 and SLS-015007 to work)
SLS-015003	Conscious Monitoring Enclosure, mouse
SLS-015004	Conscious Monitoring Enclosure, rat

*Via a separate sensor

MouseOx® Plus Non-invasive Sensors

- ▶ Easily applied by one person
- ▶ Monitor both anesthetized and conscious unrestrained subjects
- ▶ Monitor hypothermic and hypovolemic animals

Five sensors per pack

MODEL	DESCRIPTION	SIZE
SLS-015 020	CollarClip, conscious unshaved mice 1-20g	XS
SLS-015 021	CollarClip, conscious unshaved mice >15g, rats 5-30g	S
SLS-015 022	CollarClip, conscious rat 31-100	M
SLS-015 023	CollarClip, conscious rat 101-300g	L
SLS-015 024	CollarClip, conscious rat 301-500g	XL
SLS-015 025	CollarClip, conscious rat >500g	2XL
SLS-015 026	ThroatClip, anesthetized unshaved mice, 1-15g, shaved 1-20g	XS
SLS-015 027	ThroatClip, anesthetized unshaved >15g, shaved >20g, rat 5-30g	S
SLS-015 028	ThroatClip, anesthetized rat 31-100g	M
SLS-015 029	ThroatClip, anesthetized rat 101-300g	L
SLS-015 030	ThroatClip, anesthetized rat 301-500g	XL
SLS-015 031	ThroatClip, anesthetized rat >500g	2XL
SLS-015 032	Mouse Thigh Sensor, anesthetized mice and young rats	—
SLS-015 033	Rat Foot Sensor, anesthetized rats >100g	—

STARR-Link™ Analog Output Module

Output beat-by-beat MouseOx® data in analog form to another recording system.

Starr-Link™ analog output module provides real-time analog voltage outputs of MouseOx® data. STARR-Link transmits all MouseOx® data at 15 Hz, using a 0-5 VDC scale. Connects easily to computer with a USB cable. It has no external power supply and is automatically recognized by MouseOx® software. No additional software is needed.



MODEL	DESCRIPTION
SLS-000003	STARR-Link

MRI Compatible Sensor

MRI sensor plugs directly into MouseOx Plus and MRI sensor can be used in both small and large bore MRI. The sensor is 20' long enabling the MouseOx Plus and computer to be

located a safe distance from the MRI device. End of sensor contains 5' fiber optic portion to be inserted into bore. Sensor clips included to be used on animals foot or thigh.



MODEL	DESCRIPTION
SLS-001300	Pulsar Small Bore MRI Compatible Sensor
SLS-001304	Replacement MRI Thigh Sensor
SLS-001305	Replacement MRI Foot Sensor

Automated Milker for Rat and Mouse

Ideal for the analysis of breast milk composition



Automated milker provides researchers the ability to collect rat/mouse milk directly from the teat. Collects milk from lactating mothers by alternating negative and atmospheric pressures through two solenoid valves and a vacuum pump attached to a microcomputer.

Environmental pollutants, in particular carcinogenic substances and endocrine disrupting chemicals, are a worldwide concern. The influence that these substances have on babies and their development, through breast or cow milk, is of great concern. The ability to gather milk from rats and mice, widely used experimental animals, will aid in advancement of research in this area.



MODEL	DESCRIPTION
59150	Automated Milker, Rat and Mice



Rat Loft™

Perforated stainless steel platform that is bent to form a hook allowing loft to be hung from top lip of cage. Easy to install and can be left in cage for cleaning. Stainless steel will not rust, crack, or bend.

Research rats are housed in either metal wire bottom cages or plastic solid bottom cages called shoeboxes. Wire bottom cages are the preferred industry cage due to cleanliness and low labor maintenance. However, rats housed in these cages may develop lesions on their feet from constantly being on wire mesh. Shoebox cages use bedding which addresses animal welfare concerns but also carry increased operational costs to maintain acceptable sanitary conditions, research facilities using these cages must replace the bedding frequently.

Designed by a researcher who is genuinely concerned with the welfare of rats and is aware of the concerns of researchers.

- Increases floor space per cage
- Stainless steel is easily cleaned and durable
- No replacement or disposal issues
- Less expensive over time than disposable and plastic devices
- Allows nursing mother rats a place of refuge from pups
- Seems to have a calming effect on rats
- Easy to install and remove
- New hinged floor design allows researcher to access rat if beneath it



MODEL	DESCRIPTION
RAT-LOFT-H	6.5"W x 3.5"D x 3.5"H, hinged perforated deck
RAT-LOFT-OS	Oversized, 6.5"W x 4.5"D x 3.5"H
RAT-LOFT-S	Small, 5"W x 3.5"D x 3.5"H, perforated deck
RAT-LOFT M	Standard, 6.5"W x 3.5"D x 3.5"H, perforated deck

Mouse Loft



The contoured tube mouse loft was developed to provide a place where the female can find relief from the frantic life on the cage floor with a litter of aggressive hungry individuals. Contoured tube loft provides an elevated place of refuge where feed can be consumed without the constant bother of the litter. A preliminary study indicates that mice routinely using the contoured tube loft are less likely to eat the litters. Also it is anticipated that the loft will provide for the dam, freer access to the feeder resulting in less weight loss while lactating.

MODEL	DESCRIPTION
MOUSE-LOFT	Contoured Mouse Tube Loft

Cocoon Nesting Fibers



Cocoon is the latest environmental enrichment nesting and bedding product for rodents. Offers the animal an opportunity to fulfill their nesting instincts.

The fibers of the Cocoon product are very short which is safer for the animal and allows it to create a soft nest, much like in its natural habitat. Cocoon is whitened without chlorine. Sold 6,000 cylinders per case.

MODEL	DESCRIPTION	UNITS
COCO-087	Cocoon Nesting Fibers	6,000/cs

Refuge Mouse Hut



A comfortable and quiet place to rest, or to climb on and explore.

- Material to shred (just for fun or to build a nest), usually last 7 to 30 days
- 4"W x 4"L x 2.5"H, 3 openings
- Environmentally safe, non-toxic

MODEL	DESCRIPTION	UNITS
REFUGE-087	Refuge Mouse Hut	1,200/cs

Modak's Mouse Tube

Developed in conjunction with Canada's leading cancer research hospital in Toronto. This polycarbonate tube can withstand the high temperatures of an autoclave and also maintain it's shape and color. To date there are over 40,000 tubes in the field. Three year warranty.

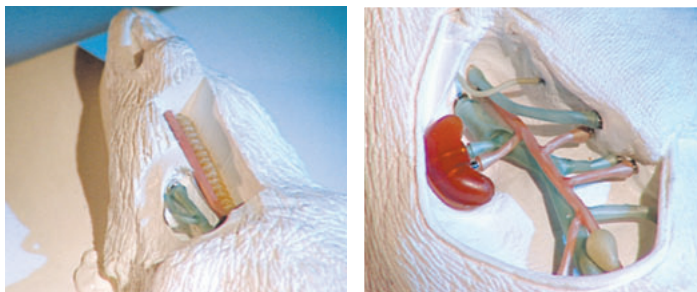


MODEL	DESCRIPTION
MOD-TUBE	Modak's Mouse Tube

BIOSEB
Tel: +33 (0) 820 825 523
Fax: +33 (0) 820 825 521
E-Mail: info@bioseb.com
Web: www.bioseb.com



MD PVC-Rat

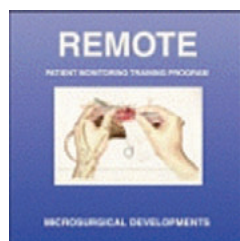


Microsurgical Developments PVC-Rat is an example of the replacement of living animals.

Microsurgical Developments PVC-Rat is developed to master skills in microsurgery.

Using the model during training of scientists and animal technicians, the number of live-animals needed will be reduced drastically.

It gives the possibility of training approximately 25 different microsurgical techniques (i.e. anastomoses, cannulations, transplantations of vessels and organs).



MD-PVC-Rat comes in a carrying case, together with a video-user-guide, several spare parts and the computer simulation program, "Remote," an interactive "patient-monitoring-system", which can be used in combination with the MD-PVC Rat. The software runs on a computer-system with Windows-95 or higher operating system.

One can train the skills needed for patient

monitoring during several (micro-) surgical techniques. During surgery, anesthesia can be administered; the animals' temperature and breathing can be observed and controlled. When the exercise is finished, the software generates a full report, showing every event and status.

MODEL	DESCRIPTION
MD-PVC	Model
MD-PVC	Parts

Mimolette Lab Rat

Perform endotracheal intubation, cardiac puncture, and blood collection from the saphenous vein



Mimolette lab rat was created with these key features to hopefully end the practice of using live rats for training. The laboratory rat has been used very widely in experiments. Following our ethos regarding humane

science, Mimolette is Rescue Critters'® proudest creation to date. Mimolette comes complete with her own carrying case, lungs, heart, veins, artificial blood and IV accessories.

MODEL	DESCRIPTION
MIMOLETTE	Mimolette (mee-moh-let) Lab Rat

KOKEN RAT

Experiment techniques training model



When various experimental procedures are conducted using laboratory animals, it is important to restrain the animal properly and to develop techniques that will meet the necessary experimental objectives. The beginner can learn

the techniques of proper holding, peroral feeding, tail vein injection and blood collection, and endotracheal intubations.

Characteristics:

- Pharynx, larynx, trachea, stomach, and tail vein are anatomically correct and replicated inside the model of the rat
- To achieve a texture similar to that of a live rat, original silicone and soft vinyl chloride are used
- When placed in position, the posture is the same as that of a live rat
- Dosage in the stomach can be confirmed because part of the abdomen is transparent
- Insertion of a needle into the tail vein can be confirmed by the reflux of the imitation blood

Techniques:

- Retention
- Peroral dosage
- Tail intravenous dosage and blood collection
- Endotracheal intubation

MODEL	DESCRIPTION
KOKEN-MODEL	KOKEN Rat Model
KOKEN-TAIL	Replacement Tail for KOKEN Rat
KOKEN-BLOOD	Replacement Blood for KOKEN Rat

Skin Pads

- For training and practicing core skills associated with wound closure
- Making an incision
- Application of skin adhesives
- Interrupted suturing and knotting
- Stapling
- Latex free
- Works with all major topical skin adhesives
- Excellent for displaying variety of sutures and skin adhesives
- Two sizes available



MODEL	DESCRIPTION
ALT-00550	Skin Pad Jig
ALT-00091	Professional Skin Pad MK2, small 125mm x 72mm, pack of 4
ALT-00092	Professional Skin Pad MK2, large 145mm x 125mm, pack of 2



Rat Models and Training Aids

The CurVet™ Rat Training Simulator



The CurVet™ rat training model is a purposely designed training aid to provide the skills required for humane and ethical handling and procedural competencies, without the need to

use a live animal. The CurVet™ rat model is British made using a material that does not include latex, but gives a unique sensitivity of a living specimen. Model is ideal for both veterinary and biomedical establishments and has several unique features such as:

Realistic dermatological skin, suitable for:

- ▶ Injections by most conventional routes
- ▶ Micro-chipping identification
- ▶ Handling and restraint (including the ability to scruff if required)
- ▶ The deliberate absence of fur enables this model to be cleaned and sanitized with an appropriate chemical sterilant

Head and spinal movement, including rear limbs

- ▶ Suitable for oral administration
- ▶ Lateral and ventral head movement
- ▶ Hard palate with incisors

Realistic removable tail with two lateral tail veins ideal for:

- ▶ Blood sampling
- ▶ Intravenous administration
- ▶ Insertion of a flexible catheter (Angiocath)
- ▶ Tail has a self sealing material hence long life span
- ▶ Additional tails can be purchased separately
- ▶ Artificial realistic non-toxic blood available

Realistic features such as:

- ▶ Eyes
- ▶ Hard palate with incisors
- ▶ Pink extremities
- ▶ Fore and rear limbs
- ▶ Anus and rectum with limited aperture for thermoregulation monitoring i.e. clinical or digital thermometer
- ▶ Adult rat size and weight approximately 300g

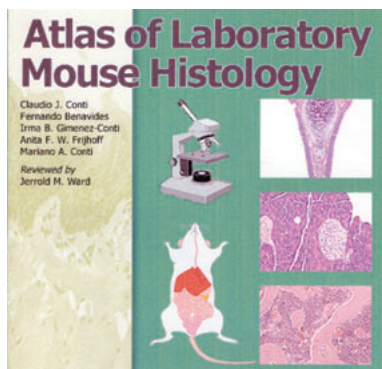
This model is NOT a toy, but a well thought out training aid to replace the use of a live animal to gain manual skill and competence, thus avoiding stress to both animal and handler.

MODEL	DESCRIPTION
CURVET	CurVet Rat Ethical Training Simulator



Electronic Atlas

Atlas of Laboratory Mouse Histology

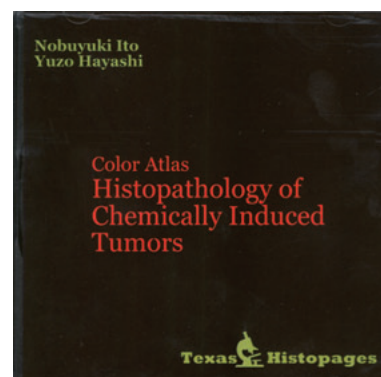


An essential reference source for anyone involved in experimental biology. This disk is an informative reference guide, showing all the organs of the laboratory mouse at four different magnifications. Includes 344 full color microphotographs and 15 full color diagrams. Clear diagrams show the relative positions of organs and up-to-date information about the histology and microanatomy of the mouse. Content is easily accessible via the menu and a search engine.

Systems covered: Integumentary system, hematopoietic and lymphopoietic systems/heart, gastrointestinal, respiratory, urinary, male/female reproductive systems, endocrine organs, nervous system, and sense organs.

MODEL	DESCRIPTION
CD-MHST	Atlas of Laboratory Mouse Histology

Histopathology of Chemically Induced Tumors



An exact replica of the Soft Science Publications atlas published in 1987 by the same name. It contains about 650 color photos and corresponding text. It is a unique collection of excellent color microphotographs of almost all lesions found in experimental animals treated with chemical agents. It is a very useful reference for experimental pathologists, cancer researchers and toxicologists.

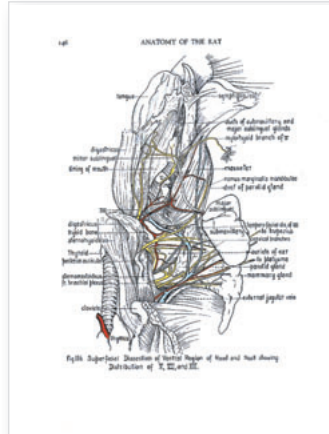
MODEL	DESCRIPTION
CD-LALES	Histopathology of Chemically Induced Tumors

BIOSEB
Tel: +33 (0) 820 825 523
Fax: +33 (0) 820 825 521
E-Mail: info@bioseb.com
Web: www.bioseb.com



Anatomy of the Rat

By Eunice Chace Greene



Available only from Braintree Scientific

This classic book offers basic reference for all researchers using laboratory rats. It includes 339 precisely detailed presentations of the rat - numerous colorful, hand sketched skeletal diagrams provide a thorough analysis of the anatomy of a rat. The large format (8.5" x 11"), clarity of the presentations, and its spiral binding - allowing it to lay flat, contribute to this valuable researcher's assistant. Whether in the library or lying on a laboratory bench, this reference book is a valuable tool. In our opinion, no other textbook even comes close!

MODEL	TITLE
AR	Anatomy of the Rat

A Color Atlas of Sectional Anatomy

by Takamasa Iwaki, Hiroshi Yamashita, Toshiyuki Hayakawa



Published in Japan, September 2001.
185 pages hardcover

Available only from Braintree Scientific

The mouse is the most widely used laboratory mammal in biomedical research such as evaluation of the safety and effectiveness of new pharmaceutical products, research in tumor suppression, and vaccine and monoclonal antibody proportional studies.

Rats are used to research a wide field including preclinical tests, microbiological research, carcinogenic experiments, neurology, physiology, toxic tests, pharmacological effectiveness tests, etc. Anatomy is one of the important basic sciences and although much progress has been recently made in the field of human imaging diagnosis, information on sectional anatomy of experimental animals is lacking at present.

- ▶ Specimens were not fixed but kept in a frozen state so that photographic information close to the living state could be obtained
- ▶ All photographs are in color for detailed observation
- ▶ Each atlas has numerous color pages, 2 pages of black and white macro-anatomical photographs are provided
- ▶ All pages consist of photographs making detail more comprehensive and three-dimensional than the usual pictorial atlas
- ▶ The anatomical terms used are in Japanese and English

MODEL	TITLE
SECT-MOU	A Color Atlas of Sectional Anatomy of the Mouse
SECT-RAT	A Color Atlas of Sectional Anatomy of the Rat

Handbook of Laboratory Animal Science, Volumes I, II and III

Editors - Per Svendsen Odense University, Denmark, Jann Hau, The Royal Veterinary College, London, U.K.

This three-volume set presents a comprehensive description of laboratory animal genetics, diseases, health monitoring, nutrition, and environmental impact on animal testing. It considers the ethics of animal experimentation through a complete review of European and North American legislation on the topic. It discusses alternatives to animal experiments, including the use of isolated organs, cell cultures, and computer simulations.

MODEL	TITLE
LAS-I	Handbook of Laboratory Animal Science, Volume 1
LAS-II	Handbook of Laboratory Animal Science, Volume 2
LAS-III	Handbook of Laboratory Animal Science, Volume 3

Manual of Microsurgery on the Laboratory Rat

An up-to-date didactic manual describing experimental microsurgical techniques in great detail.

The manual includes general information about rat, i.e. anatomy, anaesthesia and sterility and a wide range of general techniques. Sections on experimental techniques are covered in the greatest depth. All essential steps that are taken during the operations are shown in meticulously accurate drawings thus making the manual an accurate instrument in teaching and studying microsurgery and microsurgical techniques.

MODEL	TITLE
MICROSURG	Manual of Microsurgery on the Laboratory Rat

The Laboratory Animal Pocket Reference Series

Created to assist anyone who works with laboratory animals, enabling him or her to provide the most humane and responsible care. These 14 volumes are compact and comb-bound to lay flat for use in the laboratory. The contents of each includes important biological features, husbandry, management, veterinary care, regulatory concerns, and commonly used and new procedures.

MODEL	TITLE
LAB-MOUS	The Laboratory Mouse
LAB-RAT	The Laboratory Rat
LAB-CCM	Critical Care Management for Laboratory Mice and Rats
LAB-RB	The Laboratory Rabbit
LAB-GP	The Laboratory Guinea Pig
LAB-CAT	The Laboratory Cat
LAB-PRIM	The Laboratory Nonhuman Primate
LAB-HAM	The Laboratory Hamster and Gerbil
LAB-RUM	The Laboratory Small Ruminant
LAB-CAN	The Laboratory Canine
LAB-XENO	The Laboratory Xenopus
LAB-ZEB	The Laboratory Zebrafish
LAB-FER	The Laboratory Ferret
LAB-SWIN	The Laboratory Swine

Visit www.BraintreeSci.com to see the new additions



Reference Books

MODEL	CURRENT BOOKS
MOUS-ATL	An Atlas of Mouse Development
B7	Atlas of Prenatal Rat Brain Development
B8	BioChemical Techniques in the Heart
BRAIN	Brain Maps - Structure of the Rat Brain
COMP-ATLAS	Comparative Anatomy of the Mouse and the Rat
COMP	Comparative Cardiovascular Dynamics of Mammals
B15	Experimental Animals In Biomedical Research Vol. II
BRN-EMB	Dev. Brain Maps Structure of the Embryonic Rat Brain
GEN-MOUS	Genetically Engineered Mice Handbook
PRE-CLIN	Handbook of Pre-Clinical Continuous Intravenous Infusion
LA-ANES	Lab Animal Anesthesia
LAM-3	Lab Animal Medicine
PROC-TEC	Lab Mouse and Lab Rat Procedural Techniques
B22	Lewis Dictionary of Toxicology
MOUS-BEH	Mouse Behavioral Testing
METH-RENAL	Methods in Renal Toxicology
MOUS-HEM	Mouse Hematology
NP-LA	Natural Pathogens of Laboratory Animals

MODEL	CURRENT BOOKS
PATHO-RAT	Pathobiology of the Aging Rat Vol. I & II
MOUS-PTH	Pathology of the Mouse
B16	Principles of Experimental Design for the Life Sciences
ST-PHT	Stereotaxic Surgery in the Rat: A Photographic Series
MOUS-SYS	Systematic Approach to the Evaluation of Mouse Mutations
LMH-AALAS	The AALAS Laboratory Mouse Handbook
LABMOU-HNDBK	The Laboratory Mouse Handbook
MOUS-DLX-4	The Mouse Brain in Stereotaxic Coordinates
RAT-DLX-7E	The Rat Brain in Stereotaxic Coordinates, 7E
NERV	The Rat Nervous System
MOU-WW	What's Wrong With My Mouse? Behavioral Phenotyping of Transgenic & Knockout Mice